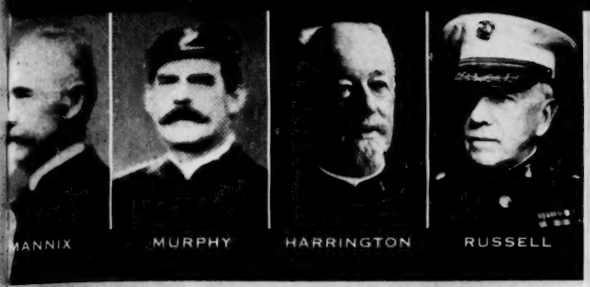
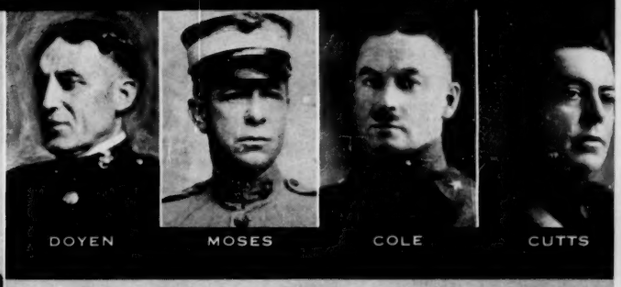
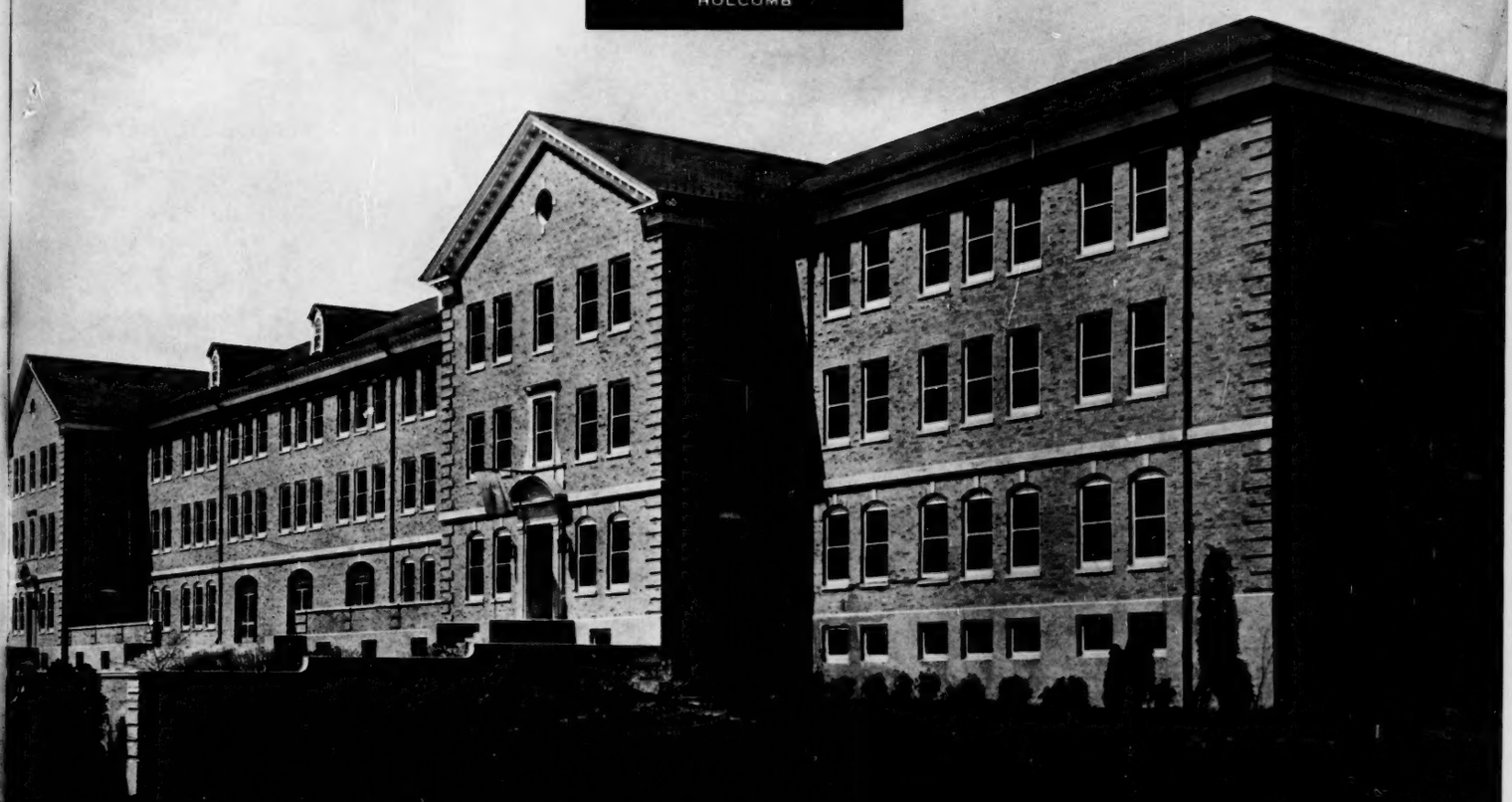
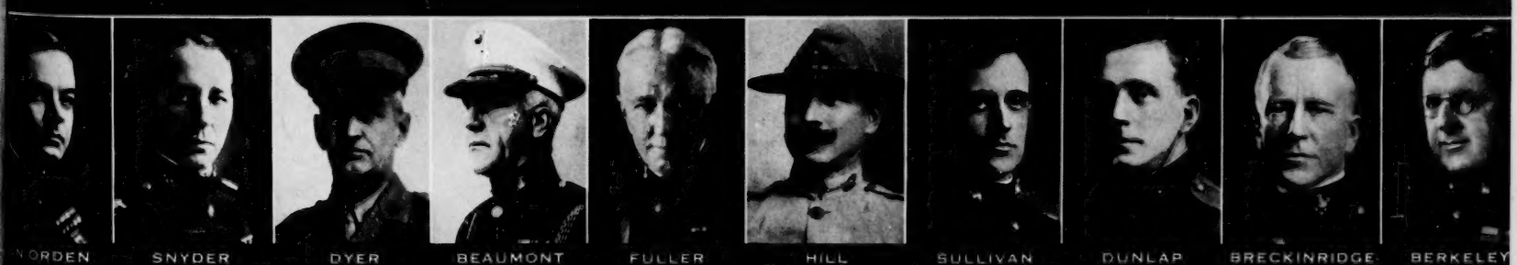
THE MARINE CORPS









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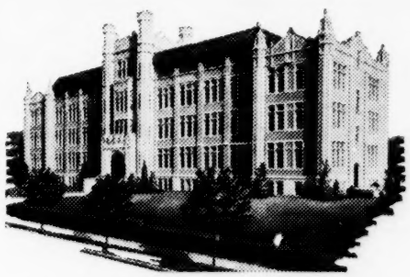

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THE MARINE CORPS GAZETTE

WASHINGTON, D. C.

Vol. 20 MAY, 1936 No. 2

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The Board of Officers of the Association will act as the Board of Judges. Any or all articles submitted will be subject to publication, with honorable mention, in the Marine Corps Gazette at the usual rates. All manuscripts submitted will become the property of the Marine Corps Association. None will be returned.

The November number of the Gazette will announce the results of the competition.

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All communications for the Marine Corps Association and THE MARINE CORPS GAZETTE should be addressed to the Secretary-Treasurer, Marine Corps Association, Headquarters, U. S. Marine Corps, Washington. Checks for payment of dues should be made payable to the Secretary-Treasurer.

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THE MARINE CORPS GAZETTE

Vol. 20 MAY, 1936 No. 2

THE ROLE OF THE MARINE CORPS SCHOOLS

CAPTAIN ARTHUR T. MASON, U.S.M.C.*

■ During the past few years, the Marine Corps Schools have undergone a transformation which, in some respects, may be regarded as a Renaissance, a re-birth in form and spirit. As a result, the Schools are now prepared for their true function as an essential part of the foundation on which the fighting Marine Corps must be built, and it is believed that this is a most fitting time and place to discuss this change and the present aspect of the Schools.

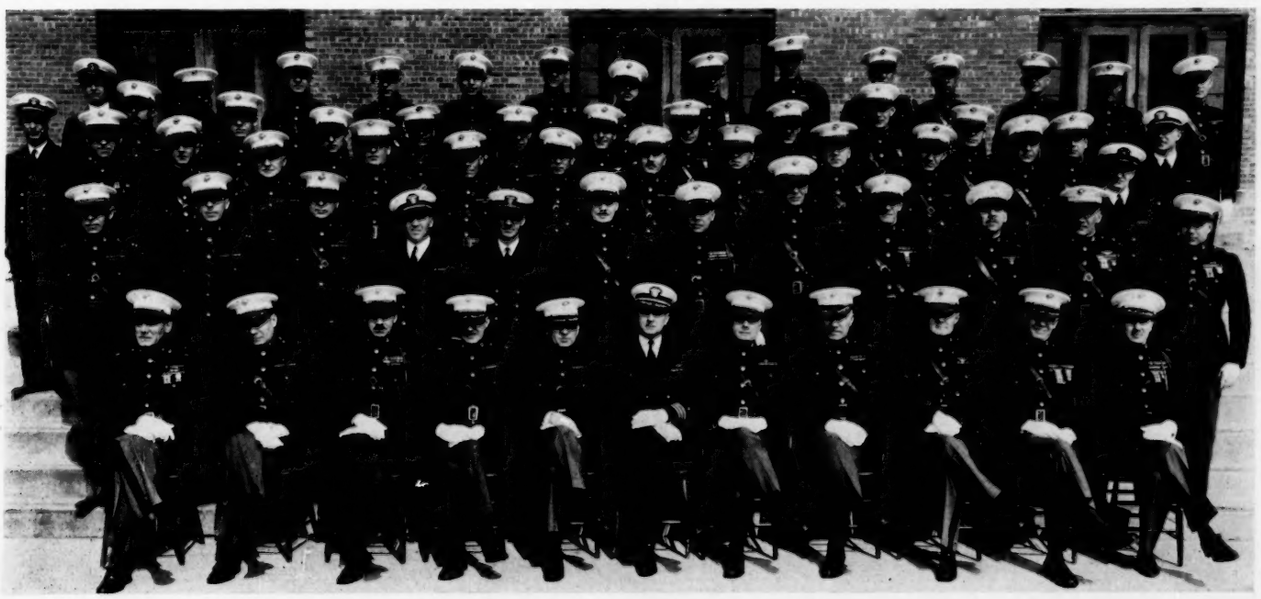
When the Schools were first organized, it must surely be conceded that the founders had in mind the conditions existing in the Corps at that time, and that the Schools were designed to meet the educational needs of the day. We may regard the birth of the present establishment as taking place immediately after the World War. At that time, the Marines were fresh from their service with the Army in a continental conflict and, inevitably, the needs and deficiencies which that war had exposed were those which the Schools were designed to remedy.

*Presents the views of the Commandant and Staff, Marine Corps Schools.

Almost at once, as war days receded, as the eyes of thinking officers were turned toward contemplation of the future rather than retrospection of the past, as it was realized that we must train not for the last war but for the next, the attitude of the Marine Corps as a whole began to change. This was indeed a slow and gradual process and it was many years before this change assumed a definite form.

Eventually, however, it came to be realized that the experiences of the Corps in the World War were to be regarded as highly exceptional rather than normal; that such a situation might, and probably would, never occur again; that the status of the Marine Corps was, as always, that of a naval force; that the Navy and the Marine Corps were mutually interdependent, the disparity in relative importance be what it may; that we were soldiers of the sea not in name only but in actuality; and that our whole future usefulness, and existence, depended upon a practical application of these facts.

From a historical viewpoint, this approach to the realities of the situation has been rapid and it may be taken as a source of gratification that the change has been accomplished without the intervention of a major catastrophe such as has often been required to tear down the old order and build up the new. To those



STUDENT OFFICERS, MARINE CORPS SCHOOLS, 1935-1936

First row (left to right): Majors Livingston, Nimmer, Silverthorn, Smith, Curtis, Commander Forster (USN), Lieutenant Colonel Kennedy, Majors Kelleher, Hill, Gladden, Geer. Second row: Captains Davies, Pohl, Luce, Lieutenants Comp (USN), Little (USN), Majors Anderson, Brown, Captains Liversedge, Fellers, Bassett, Sanderson, Brown. Third Row: First Lieutenant Utz, Captains Burke, Ryan, Cockrell, Donehoo, McHugh, Riseley, Huff, Cutts, Kimes, Strong (VMCR), Lieutenant (jg) Lampman (USN). Fourth row: Lieutenant (jg) Cortner (USN) Captains Walker, Bailey, Straub, Thwing, Anderson, Kreiser, Perrin, Cresswell, Chappell, First Lieutenants Juhan, Sabater, Lieutenant (jg) Lange (USN). Fifth row: Lieutenant (jg) Ford (USN), First Lieutenants Cornell, Butler, Jordan, Silard, Thompson, Piper, McAlister, Captain Brown, First Lieutenants McFarland, Griebel, Loomis, O'Neil, Benson.

who have lived through the slow years, however, it must sometimes have appeared that accomplishment was lamentably backward. Although naval officers have for many years been contemplating the possibility of a naval war on a grand scale, although it has long been realized that essential operations in the course of such a war would be those required to obtain land areas necessary for the support of the Fleet, and although they, and we, have said that the seizure and defense of advanced bases is the primary mission of the Marine Corps, it was not until two and a half years ago that the Fleet Marine Force was brought into being as the logical conclusion to these premises.

About the same time, or perhaps a little sooner as thought is more rapid than action, the process of development of the Schools began notably to be directed toward the same end, the forging of the Marine Corps into the form of a weapon in the hands of the naval commander-in-chief. This has been a tedious and difficult process to which the best endeavors of numerous officers connected with the Schools both as staff and students over a long period of years, and of some not directly attached but united in a true appreciation of the educational function of the Schools, have contributed. As this school year closes, it may be said for the first time that the Schools are past the experimental stage in this new development and are, together with the Fleet Marine Force and the Corps as a whole, finally oriented in the direction of their real destiny as a supporting agency of the Navy. To say so much is not to say that growth is complete. It is, in fact, but barely begun; many details remain to be investigated and our knowledge as a whole must be carefully directed along the most practical and useful channels. That this may become possible requires the friendly understanding of every officer in the Corps and it is to the many who, from long dissociation or no association at all, are not familiar with the present efforts, the accomplishments, the difficulties and future problems of the Schools, and with their place as an integral part of the Corps that this description is mainly addressed.

As the outgrowth of the development which, although beginning almost with the foundation of the Schools, has been greatly accelerated in definite form and objective during the three past years, the Schools have, during the school term just ended, offered to the Senior and Junior classes courses that conformed strictly to Marine Corps tasks; in the main, amphibious enterprises and small wars. In doing so, problems and types of operations were encountered that had hardly been touched on before. The technique of seizure, occupation, and defense of advanced bases is new to modern American naval thought which, heretofore, has been occupied with the primary task of solving the problem of defeating the enemy afloat. Where advanced bases entered into such problems, they were seized and defended as part of the situation and the Fleet, presumed to be adequately supported by bases created by such unsubstantial means, proceeded therefrom to destroy the enemy fleet. Although various discerning officers had individually applied their attention to the problem so that the present accomplishment is the result of evolution rather than revolution, it was not until the Schools as a whole undertook the study of this particular application of the art of war that there existed serious, coordinated and continuous thought, on the part of a large group of officers, devoted to the means, measures, and material involved in such enterprises. While the subject is by no means exhausted and requires much further research into the new vistas which continually open before us into this most difficult type of operation, the strategical and tactical studies involved in the seizure and defense of advanced bases, as dealt with in the Schools, find no analogy in any other service school at home or abroad. The Marine Corps Schools are in this respect unique.

Not only do the Schools claim leadership in the study of the particular aspects of national defense in which the Marine Corps is concerned; it is also considered that the educational system as now established by Headquarters and maintained by the Schools is in accord with the best modern principles. There are four characteristics of our educational system which should be noted in this regard: (1) it is progressive, (2) it is suited to the needs of the individuals who compose its various inter-related groups, (3) it is practical, and (4) it serves the Corps as a whole.

The progressive character of learning is universally regarded as essential for the professional man, who can never consider that he has learned all there is to know in his field, and whose formal learning, as distinct from his improvement by experience, must continue at intervals throughout his career. While the military officer finds that his profession is subject to the rapid changes incident to the discovery of new methods and technique, he is handicapped by being deprived of the continuous flow of experience common in other professions which is in itself a progressive education. From the standpoint of national welfare, the less war the better; but so far as professional attainment is concerned, the result is that study and training must take the place of actual combat and that the military officer must make greater efforts not only to increase his knowledge but also to retain that which he has acquired in the past.

We can, therefore, at no time say that we have completed the education of an officer, and in accomplishing the life-long task of professional education we find five distinct groups within the framework of the Schools, contributing to, and having relations with, others outside. These are the Basic Course, the Junior and Base Defense Weapons Courses, the Senior Course, the Correspondence School, and the Staff.

The Basic Course for newly-joined second lieutenants is the superstructure of professional detail which is built on the previous general education of the individual for the purpose of inculcating the necessary elements on which experience and further learning must be based. Without this course, or its equivalent in the much longer and more difficult school of experience, the newly-commissioned officer cannot become the lieutenant he is supposed to be, capable of performing all the duties with which he will be immediately confronted. The purpose is to qualify these officers for leadership in rifle and machine gun units and for service on the battalion staff; the instruction includes the basic fundamentals of administration, naval law, drill and command, topography, infantry weapons, and minor tactics.

After completing a number of years of service, younger officers may attend the Junior Course. By this time, they are presumed to know the fundamental subjects of their profession: their map-reading and topography, their forms for plans and orders, their infantry weapons, their organizations, their normal land-warfare tactics, and other elements which their course in landing operations and small wars must have as a solid foundation. These, however, are not ignored in the Junior Course, and so much of them as is necessary as a refresher is included. Here,

however, the officers—junior captains and senior lieutenants—first face the realities of the mission of their Corps.

The Junior Course, then, has for its main feature tactical operations, with command functions of all units up to and including the battalion (and staff functions to include the regiment), as an independent unit, and as part of a force in naval landing operations, including the seizure of advanced bases, the occupation and defense of naval bases, small wars, and emergency operations such as Marines are frequently called upon to perform. Not only is the larger percentage of time devoted directly to these studies but all other parts of the course are contributory to them. The objective assumed by the Schools in this course is "to train officers for the war-time duties of company and battalion commanders, and for duty on battalion and regimental staffs, by a study of the employment in war of companies, battalions, regiments, and associated arms."

Simultaneously, a few officers, at the same period of their service, take the Base Defense Weapons Course. The course is designed to prepare these officers for service with artillery units of the Fleet Marine Force and consists primarily of technical and practical instruction in base defense weapons. Mathematics, topography, gunnery and the tactics and technique of base defense weapons, including periods of actual field training and firing, are included. A portion of the course is devoted to naval landing operations, particularly the defense of advanced bases, in order that the officers may have a better understanding of the tactical relation of artillery units (naval, field and antiaircraft) to the whole scheme of base defense.

On completion of either of these courses, the individual officer is not only ready to return to other duties with increased interest and efficiency but is also prepared to assume such command or staff duties as may come to him in the rank he will attain prior to his next course or in the event of sudden promotion in case of national emergency. But his education is by no means complete.

The next stage of progress is the Senior Course. This is designed for field officers and captains who are about to attain that rank. Although it is a logical sequel to the Junior Course, it is by no means a direct continuation—the two together do not constitute a single two-year course; the Senior Course is specially designed for older officers after a period of service and increase in rank has occurred.

A brief portion of it is in the form of a review of topography, the tactics and technique of the separate arms, and map problems and terrain exercises based on purely land warfare situations, for the purpose of restoring and modernizing those essential foundations of more elementary knowledge upon which study of the larger and more difficult phases of amphibious warfare must be built. It then includes the entire field of naval landing operations with special emphasis on the Marine Brigade and the Fleet Marine Force, both when acting independently and when part of the Fleet, and command and staff functions in all types of operations from small, independent units up to and including the mobilization, organization, and operations of the largest probable Marine Force. The study of small wars forms an important part of the course. The same thing may be said of the officer com-

(*Continued on page* 61)

CLASS OF 1892, SCHOOL OF APPLICATION, MARINE BARRACKS, WASHINGTON, D. C.

From left to right: First Lieutenant Thomas C. Prince, Second Lieutenant Robert McM. Dutton, Second Lieutenant Lewis C. Lucas, Second Lieutenant Julius Prochazka, Second Lieutenant Edward R. Lowndes, Second Lieutenant Ben H. Fuller, Second Lieutenant Charles G. Long, Second Lieutenant Bertram S. Neumann, Captain D. Pratt Mannix. Captain Mannix was Commanding Officer, First Lieutenant Prince was Instructor and the second lieutenants were student officers.

THE "MINUTE MEN" OF CANADA

Major General James Howden MacBrien, Commissioner, Royal Canadian Mounted Police.

WILLIAM A. MILLEN

■ There is kinship between the U. S. Marine Corps and the famous Royal Canadian Mounted Police, for both are famed in song and story. Both have a high esprit de corps, require great stamina for the hard tasks assigned them; handle police details; have guarded the mails; had really tough jobs handed them and have preserved law and order beyond the frontiers of civilization. In the hinterland, they have both found chaos and left orderly government and progress in their wake.

In Canada, the scarlet tunics of the Mounted are the embodiment of the law. The motto of the Force is "Maintien Le Droit." It looks after the welfare of white and aborigine alike. Often, the officer of the Royal Canadian Mounted Police is arrester, magistrate, jailor, executioner and coroner—all in one—especially in the Far North. Subjects as widely separated as marriages and fisheries come within their official scope. North of '59, the Mounted have performed outstanding work, especially in these latter years. In many cases, they have opened up geographic areas, explored the limitless wastes and carried the mail to isolated human beings—hunters, miners, trappers—in far places, always performing their prime mission of keeping the peace.

The "dress" uniform for a Constable comprises the campaign hat; scarlet tunic, edged at the collar with blue, with the initials "R.C.M.P." at the shoulder straps; with pistol on side; breeches of blue, with a yellow stripe running down the outside of the leg, and boots that reach almost to the knee. Spurs, riding crop and gloves finish off the uniform. Two small brass buttons appear at the back of each cuff.

The ordinary patrol dress is much the same, save that the scarlet serge gives way to the brown serge jacket, open at the throat. The tie is dark blue.

When a member of the Force makes an arrest, he gives evidence in court, when the case comes up for trial, in ordinary circumstances. In out-of-the-way places, as related, he may be "judge and jury" in one.

In six Provinces north of the United States, the Royal Canadian Mounted Police enforce all laws—provincial and federal—outside of large cities and towns. Accordingly, its members are required to give evidence in cases ranging from such serious offenses as murder to an infraction of the traffic laws.

There is NO set tour of duty, as between office and field duty, for the member of the Force stationed in the field. He is required to keep his records and reports up to date and at the same time to keep control of all investigations. Field work takes priority. If he is unable to attend to keeping his work current—due to pressure of duties or from some other cause—he is furnished assistance.

"A member of the R. C. M. Police is considered to be always on duty, except when on leave of absence," says Commissioner J. H. MacBrien, commanding the famous outfit.

At Ottawa, a new headquarters is now under construction for the Royal Canadian Mounted Police. From this stately building, soon, will go out the orders to the men that represent King Edward VIII along the highways and byways of the far-flung Dominion that is Canada. The exterior of the structure has already been completed.

For the fiscal year that ended March 31, 1936, Parliament passed an appropriation for the maintenance of the Force that totaled $5,900,988.75. The sum made available for the 12 months ending March 31, 1937, is $5,583,800. These amounts, however, do NOT include the items for pensions for service, etc. First of all, in running through the governmental mill, the estimates are submitted to the Treasury Board by the Minister in Control of the Royal Canadian Mounted Police, where they are carefully analyzed and scrutinized. If NO deductions are made there, the total appropriation is submitted to Parliament, where all information relating to it is made available, if desired. If Parliament passes the amount asked for, it is distributed by the Minister of Finance, after the Money Bill has received the assent of the Governor General. A similar procedure is followed in securing funds for the U. S. Marine Corps, running the gauntlet of the Bureau of the Budget, the Committees of Congress, the House and Senate and then the President.

With armies going in for mechanized units and gasoline replacing hay in most instances, one might fear that this famous old Mounted force might be on the decline, as such. But, fear NOT, for General MacBrien has this to say:

"There is NO intention whatever of dispensing altogether with the mounted man. A well trained mounted unit of sufficient number is invaluable to any force which may have to deal with unruly crowds."

Recently, General MacBrien, who is a famous soldier in his own right, was in Washington, during the North American Wild Life Conference. He had interviews with J. Edgar Hoover, chief of the Bureau of Investigation of the Department of Justice, learning how the United States is coping with the criminal problem by the latest methods. This was of particular interest to the General, whose eminent Force is known to every schoolboy because of the motto attached to it: "Get your man."

Varied indeed are the duties performed by the Mounted. They forfeit vehicles used in the transportation of malt syrup, which is considered illegal. They enforce the law which makes it an offense to signal a rum-runner from the shore and for a rum-runner, within territorial limits either to answer or to make any signal to a person on shore, as well as the provision that bars the use of "smoke screen" apparatus on vehicles or vessels.

Prevention of the use of narcotic drugs on horses at race meets in Ontario and elsewhere is a comparatively new duty that has been assigned the Mounted. The seizure of opium is another task they undertake.

The economic depression has increased the work of the Force tremendously. Due to the large number of transients traveling on trains, the Act making this illegal requires additional attention and patience. Recently, in one division alone, 6,000 persons were removed from freight trains in one month, but only a comparatively small percentage of these were prosecuted.

Persons supplying liquor to the Indians are apprehended by the Mounted in their campaign to prevent crime among the natives of the Great North Country. The international traffic in marihuana in cigarette or other form is yet another activity of the scarlet coats. Registration of all pistols and revolvers, under legislation effective January 1, 1935, gave the famous Mounted yet additional duties. At Royal Canadian Mounted Police Headquarters, a central bureau has been established for this work and around 50,000 weapons have been officially recorded.

Dissatisfaction of the unemployed in relief camps—another burden of the economic depression—has added to the unrest with which the Mounted has had to cope. Strikes in mining and industrial centers of Canada and the hinterland and the strike of discontented farmers over lack of cleaning equipment in elevators, causing a stoppage of grain deliveries—gave the Mounted extra work. In one instance, the hauling of grain under protection of the Force was resorted to.

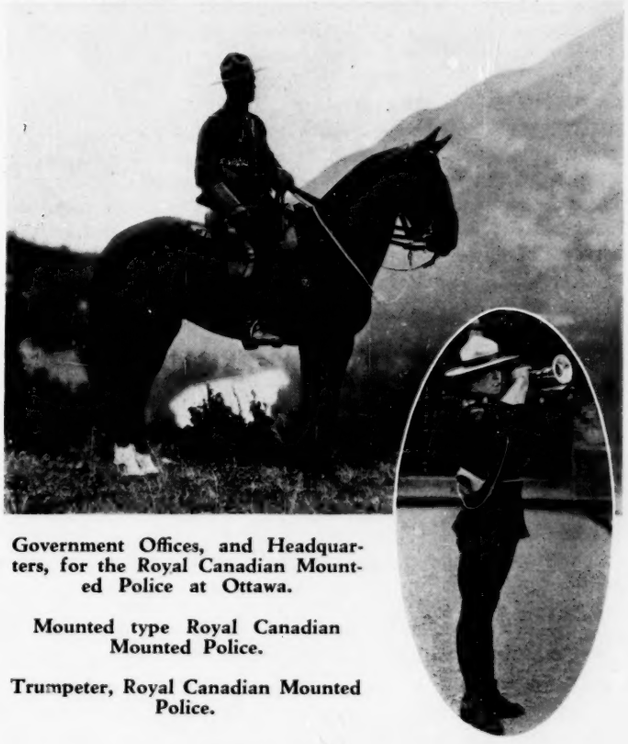
All this unrest, growing out of the depression, piled additional jobs on the shoulders of the Mounted. Reserve strength has been maintained at strategic points, to be ready for outbreaks against the law.

What manner of man is he who heads this mighty Force that spells orderliness throughout the Dominion—and beyond?

Maj. Gen. James Howden MacBrien, the Commissioner of the Royal Canadian Mounted Police, who is paid $12,000 annually for his job, was born at Port Perry, June 30, 1878. He has served in the Mounted himself. His career includes duty with the South African Constabulary. During the South African War—1901-2, he obtained the Queen's Medal, with five clasps. During the World War, General MacBrien was mentioned in dispatches six times; was awarded the Distinguished Service Order and bar; is a Companion of St. Michael and St. George; is a Companion of the Bath and holds the Legion of Honor.

General MacBrien was chief of the General Staff of the Overseas Military Forces of Canada in 1919 and was appointed Chief of the General Staff of the Canadian Militia in the year following. Thus, the head of the Mounted is a soldier, tried in the field, and has a cosmopolitan background, indeed.

But that is NOT all. For, he was Chief of the Staff, Department of National Defence, 1923-27. He has been president of the Aviation League of Canada since 1928 and since 1931 has been Commissioner of the Mounted.



Government Offices, and Headquarters, for the Royal Canadian Mounted Police at Ottawa.

Mounted type Royal Canadian Mounted Police.

Trumpeter, Royal Canadian Mounted Police.

He is an Honorary Colonel of the Toronto Scottish, the Perth Regiment and the 3rd Division Signals. The Crown created him a Knight Commander of the Bath in 1935, in recognition of his distinguished service to the Empire.

The Deputy Commissioner of the Force is J. W. Spalding. There are eight Assistant Commissioners; 19 superintendents; 57 inspectors; two detective inspectors; two sub-inspectors; one assistant veterinary surgeon; 48 staff sergeants; 174 sergeants; 246 corporals; 58 lance-corporals and 1,592 constables of various ratings; 27 sub-constables; three trumpeters and buglers and 115 special constables.

There are 19 cruisers and patrol boats in the Marine Section, which are used solely in connection with the Preventive Service. At Halifax, N. S., training for the Marine Section ratings is carried out. Marine Section divisions are located on Prince Edward Island, Nova

(*Continued on page* 57)

PACK HOWITZER BATTERY IN LANDING ATTACK

MAJOR C. W. LEGETTE, U.S.M.C.

■ 1. It is generally conceded that a landing attack overseas is one if not the most difficult of all military operations. Transportation of the Forces overseas on costly ships that take time and skill to produce and operate, the difficulty of placing this Force ashore through rough seas and possibly against opposition, and the difficulty of maintaining close contact with them after landing including their supply, is indeed a problem involving the greatest care and consideration in planning the operation and training of the Force to be employed, if they are to have any great chance of success. It is believed that any practicable machine which will increase the striking power of the attacking force, or produce the same striking power with a less number of men, should be used. By so doing, either with a less number of men or with a more striking force or both, the problem will be so much the easier. The PACK HOWITZER is such a machine. It has a maximum ordinate of 20 feet at 510 yards and is extremely accurate at 8,000 yards with a probable error of only 28 yards. It is a more accurate weapon than the 75mm Gun (French), at most ranges. See the probable error as shown in their respective range tables.

2. In planning a landing operation the following ASSUMPTIONS should be made:

That we will be landing against opposition.

That we will be landing through a two or three foot surf.

That the most critical point in the landing operation will be along the beach line.

That the most critical time will be the first few hours after the first elements land.

(a) The first two assumptions are what it will be proper to expect. Of course, every effort should be made to effect surprise in landing and with the secondary consideration of making the landing at such time as will find a minimum surf running, but plans for the operation should be so drawn as to anticipate the failure to wholly secure either. In fact, it will be better to be prepared for the worst, and then if it is found that the landing *is* a surprise, the operation will resolve itself into one of ordinary land warfare.

(b) In the third assumption, it must be assumed that the enemy will ordinarily take advantage of the beach lines for his defensive system. It is there that we will be most vulnerable, in the act of getting out of small boats. The enemy will undoubtedly have the whole beach line sited for machine gun fire and covered with artillery concentrations. These fires should be neutralized and the immediate defensive system overrun before it becomes practicable to land the Pack Howitzer Battery.

(c) The fourth assumption is based on the fact that the attacking force at best will be in considerable confusion, operating over strange terrain, everyone very busy, and with as yet only a limited part of its total strength able to exert any effort. Then too, there probably will be a period in the landing operation when the only direct fire support the attacking force will have, will be that supplied by aircraft. Ship's gun fire will have lifted to rear areas and the Pack Howitzer battery will not yet be in action.

3. In other words, normally the conditions as outlined in the above assumptions are those to be anticipated in the plans for the landing operation. Without them there will be no particular problem, except for logistics, than that found in a difficult type of land warfare. Hence, the propriety of making these assumptions.

4. There are numerous historical examples showing the necessity for the use of artillery (machines). The defeat of Lee in the Civil War can be attributed in no small degree in spite of the disparity in numbers engaged, to a more skillful use of a better and more numerous artillery material. See *Field Artillery Journal* for January-February, 1936. In the World War, a passing 75mm gun commandeered by the Commanding Officer of the 1st Battalion, 412th French Infantry permitted his Battalion to make a successful crossing of the Oise River on October 14, 1918, after repeated failures during the preceding days. See page 85, Volume IV, *The Infantry School Mailing List*, 1931-32. The commandeering and use of this single piece not only shows the necessity for the use of artillery, but something more. It shows among others the ability (very desirable in all Infantry Commanders), to readily recognize what artillery could do and the importance of same in assisting his command to accomplish its mission.

5. Artillery should not ordinarily be held in reserve. All available pieces should be placed in position to fire in support of the initial attack, even when their fire is not needed. As the attack progresses and the artillery has to move forward, as few pieces as possible should be out of action at any one time. The true RESERVE of the artillery is its ammunition. See paragraph 358, *Field Artillery Field Manual*, Volume II. This principle was exemplified by Hunt, General Meade's Chief of Artillery at the Battle of Gettysburg, when he stopped the fire of his artillery, then engaged in an artillery duel with the Confederate artillery, to conserve his ammunition for the infantry attack which he knew would come. See page 382, *American Campaigns* by Steele. And it was this conserved ammunition (Artillery Reserve) which stopped Pickett's charge some time later and wrecked Lee's chances of winning the battle.

6. If the four assumptions as given above are correct, the fire of the Pack Howitzer battery will be needed and at the earliest practicable moment. It should be used early in order to reduce if not entirely eliminate the period during which the only close supporting fire of the attacking force is that of aircraft.

7. In any landing operation a careful reconnaissance of the beach and its defensive system must be made. In addition to reconnaissance by patrols and from ship board, a great deal of information may be obtained from a study of air photos. It will be necessary to have, for the use of the attached battery, a map or a good mosaic of the area adjacent to and included in the beach head to be established.

8. The necessity for careful preparation in order to properly coordinate a landing operation is obvious. This coordination is absolutely necessary to get the best results out of the pack howitzer battery. For this reason then the Pack Howitzer Battery will usually be attached at least initially to the infantry battalion it supports.

9. In the planning and preparation for a landing operation the reconnaissance should be made in sufficient detail to permit the commander, aided by the recommendations of the battery commander as to the limitations of his battery, to select important enemy key positions and works and assign them to the battery for neutralization. Only in this way can the battery be sure of being able to open fire immediately upon landing. The use of an airplane if present at the proper moment, of course, could lay and observe for the battery.

(a) The real reason for the normal type of fire of Light Artillery being for "Neutralization" rather than for "Destruction" (target hitting) is due to the relatively small amount of high explosive it carries, and consequently the large number of shells required to destroy. The whole projectile of the 75mm Pack Howitzer weighs less than 15 pounds, of which only 1.4 pounds is H.E. Whereas one eight-inch howitzer projectile weighs 200 pounds of which approximately 31 pounds is H.E. For instance, if it requires a block of 30 pounds of TNT to destroy a certain bridge, one hit with the eight-inch howitzer would suffice, whereas with the 75mm it would require 22 projectiles to carry the same amount of TNT, and they would not all land at the exact same spot nor at the same instant. Consequently, to get the required destructive effect on that particular bridge would require probably over 200 75mm projectiles making hits. Then making ample allowance for the adjustment and misses to be expected we have:

For 8-inch Howitzer adjustment	14 rounds
For 8-inch Howitzer effect	6 rounds
TOTAL (Two (2) tons ammunition)	20 rounds
For 75mm Pack Howitzer adjustment	14 rounds
For 75mm Pack Howitzer effect	500 rounds
TOTAL (Five (5) tons of ammunition)	514 rounds

Remembering the old problem in field artillery, viz., the transportation of ammunition, the reason for not using Light Artillery, 75mm Pack Howitzer, for destruction is obvious. The use of Light Field Artillery for destruction is not impossible nor is it always undesirable, but it is the exception rather than the rule, and due consideration must be given to the enormous amount of ammunition required when assigning such missions. With approximately 100 rounds, a 75mm Pack Howitzer battery could deny the use of the above bridge by the enemy for a period of one hour, and, of course, obtain some destructive effect at the same time.

10. Early opening of fire is important, even if we do not consider the assistance it renders. When a Pack Howitzer is not firing it is a distinct liability and is doing nothing to aid the attack. It is their H.E. shells landing on the enemy that counts after all. Consequently, it is worse than useless, except where surprise has been effected, to have the pieces standing idly by doing nothing.

11. The battery and liaison communication systems, although they will have landed in one of the earlier subwaves, will usually not be completed by the time the battery is ready to open fire. Consequently, there is a time in between in which the battery would not be firing unless it has something to fire on schedule, or answering calls for fire by an airplane. Then to make certain to place artillery fire promptly where it is urgently needed, scheduled fires must be resorted to, at least to allow for the period in question. To do this the preliminary reconnaissance must be in sufficient detail to determine where artillery fire is needed and sufficient of these missions assigned beforehand to allow for the completion of the above communication system. These scheduled fires could be dated from the time (indefinite) the battery is in position, or from this time estimated (definite). Note: Should a surprise be effected, a messenger could be left at the beach for the battery not to open on its scheduled fires.

12. In order to prevent an excess waste of ammunition in firing these scheduled fires, the battery must have a good map or an excellent mosaic, and then select its positions and prepare its data with great care. All possible corrections for this data even to the extent of an estimated wind and powder temperature should be applied. These calculations being made beforehand, there will be ample time available.

13. Since artillery fire will be needed at the earliest practicable moment and since all elements of the attacking force should spend as little time as possible on the beach line, the battery for the initial landing should go as light as possible and still be able to do the work, viz: Carry the pieces, some ammunition, the crews, and a communication detail with light gear (breast reels and telephones). Further, each individual should carry as light a load as possible, not exceeding 50 or 60 pounds, and have sufficient crew to prevent any man from doubling back for a second part of the Howitzer. The Howitzer *can not* be assembled for firing until all parts except possibly the wheels, are present. Hence, the crew should be large enough to take it all ashore in one trip. That is, when all individuals are ashore the complete Howitzer should be ashore, and while it is being assembled for firing the higher numbered cannoneers go back for the ammunition. However, all parts are not assembled simultaneously, and arrangements should be made to disembark them from the boat in the order they are to be needed in the assembly. It will require seven or eight of the key men three minutes to assemble and lay the Howitzers. Anyway, this time will be needed for the other members of the crew who have brought up and assembled their part to return and bring up the ammunition. The Pack Howitzer section with a complete crew can, through a normal small surf on a sandy beach where the boat beaches not more than fifty feet out, unload their piece, carry it through the water to its position on the beach not more than twenty yards from the boat, assemble it, lay it, and open fire within five (5) minutes. Add to this, the time required to carry the piece to any position inland, five (5) minutes for the first hundred yards, ten (10) minutes for the second, and say fifteen (15) minutes for the third, depending on the terrain both as to the incline, nature of soil, brush, etc. It usually will be more advantageous in saving time to carry the piece disassembled if the distance to the position from the beach is less than two (2) hundred yards, and if more, terrain permitting, it should be assembled and drawn on its wheels to the position and there disassembled and reassembled for firing. Changing the piece from travelling to firing position requires three (3) minutes with a trained crew.

14. In order to further expedite the landing, keep the sights dry and not have the men disembark in water over their heads, as small a boat as will carry the section with its attached personnel (27 men plus 2 to 5 men), the piece (1,400 pounds), and an initial supply of ammunition (48 rounds, 1,200 pounds) should be used. A

larger boat will ground too far out, and a smaller boat will not carry the complete section as listed above.

(a) This boat should not be smaller than a 36-foot Motor Launch and not over a 40-foot Motor Launch. In accordance with the discussion above the 38-foot Motor Launch if such exists appears to be the ideal size for a section of Pack Howitzer artillery. Disregarding the rated boat spaces, since the weight of a section of Pack Howitzer artillery rides low in the boat, the 36-foot Motor Launch could be used.

15. Then in order to land expeditiously and open fire promptly it is necessary to have a Howitzer, some ammunition, and a complete crew all in one boat. A complete crew, so that no individual will have to double back for a second part. Of course, some individuals will have to double back for ammunition, but this will be done while the others are assembling the piece and no delay in opening fire should result. To separate the crew into two boats, or put the ammunition in one boat and the piece in another will usually operate to delay the opening of fire. The loss of any one boat puts that section out of action. In other words neither one, the piece, the ammunition, nor the crew is of any use as artillery without the other two. With a complete crew, the Howitzer will be landed when each man gets ashore. To carry any more impedimenta than absolutely essential merely operates to delay the opening of fire. If the position is more than two hundred yards inshore, of course, it will be advisable to take some carts, Cole or larger depending on the terrain, to carry ammunition. Ordinarily these carts will be brought ashore with the second or later increment of ammunition.

16. Normally as seen from the nature of the operation, the position of the Battery will have to be near the beach but preferably far enough away to be out of the previously prepared enemy machine gun, and light artillery concentrations. Probably 100 to 200 yards will suffice. The greater the distance of the position from the beach the more delay in opening fire.

17. From the above a battery should carry ashore initially approximately the following impedimenta only:

8 to 10 Telephones
1 to 3 Miles of wire, all on breast reels
2 to 4 Sets signal flags, semaphore
2 Blinker guns
2 Aiming Circles
3 Prismatic compasses
Field Glasses for each officer and each section chief.
2 Radio sets
4 Howitzers
4 Quadrants
176 Rounds H. E. or more
16 Rounds shrapnel or more

(a) The above to be carried as follows:

By the Reconnaissance Party (BC) in one of the earlier subwaves.

2-6 Telephones.
1-2 Miles of wire, on breast reels.
2 Sets signal flags, semaphore.
2 Blinker guns.
1 Aiming Circle.
1 Prismatic Compass.
Field Glasses.

(b) By the Liaison Party, in one of the earlier subwaves.

2-4 Telephones.
1-2 Miles of wire, on breast reels.
1 Prismatic Compass.
2 Radio sets.
Field Glasses.

(c) By the Firing Battery.

1 Prismatic Compass.
1 Aiming Circle.

(c)(1) By each section.

1 Howitzer.
1 Quadrant.
48 Rounds ammunition.
1 Telephone.
1 Breast reel.
Field Glasses.

The steps necessary to be taken by a Pack Howitzer battery in a landing attack are as follows:

Preliminary

1. Obtain maps, mosaics, air photos both vertical, slants, and horizontal.
2. Compute and apply new declination constant for all compasses in battery.
3. Check or bore sight pieces.
4. Check telephones and wire.
5. Reconnaissance from Shipboard.
6. Reconnaissance from Map and Photos.
7. Reconnaissance from Patrols.
8. Consult with Commanding Officer relative to missions (suggest missions).
9. Selection of position, exact for battery and approximate for O.P.
10. Plan scheduled fires and compute data for same.
11. Plan sufficient concentrations to cover entire area and compute data for same.
12. Plan airplane shoots.
13. Train all men in plane wing signals.
14. Prepare boat assignment table to include not less than 48 rounds ammunition. (44 H.E. and 4 Shrapnel) per section.
15. Direct Liaison Officer to keep battery (BC) informed periodically of location and changes in our infantry front line.

Very Important

DURING THE LANDING AND INITIAL ATTACK

1. Reconnaissance and Liaison Parties land with the 2nd or 3rd Subwaves (10 to 20 minutes ahead of firing battery).
2. Reconnaissance Party (BC) leaves a guide at the beach and a marker at battery position with aiming circle set up with needle centered on proper data for laying battery, or with an aiming point designated and a deflection given. Establishes communication with O.P.
3. Selects exact position of O.P., approximate position having previously been selected.
4. Battery lands, usually with fourth or fifth subwave.
5. Proceeds to position.
6. Occupies position.
7. Opens fire (scheduled), or answers calls for fire from a designated airplane.

DURING ATTACK

1. On or before completion of scheduled fires, all communication systems should be completed, when control of battery should revert to the B.C.
2. Battery supports the attack by firing concentrations as called for or answers calls for fire from a designated airplane.

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A HISTORY OF THE EDUCATION OF MARINE OFFICERS

MAJOR C. H. METCALF, U.S.M.C.

■ During almost the first hundred years of the history of the struggling little military organization called the United States Marine Corps when it varied in strength from less than one thousand to approximately thirty-five hundred officers and enlisted there appears to have been very little attempt at the development of an educational system for officers of the Corps. The officers personnel was so small that only a very few were taken into the Corps at any one time except during temporary expansions in time of war, notably during the War of 1812, the Mexican War and the Civil War. Even during most of those wars throughout the first hundred years of our history the number of officers was only slightly increased. There was scant opportunity and for that matter very little need for a systematic education other than that of the school of hard knocks in order for officers to perform their relatively simple duties at sea and ashore during this period. They were commissioned in groups of from two to perhaps half a dozen, and ordered to Headquarters which during practically all of this period was at the present site of the Marine Barracks, Washington, where under the guidance of the old patriarch of the Corps, Colonel Archibald Henderson and his successors, they were given a brief period of instruction and fatherly advice and sent away to sea to learn as best they could the duties of a marine officer and the ways of the Navy. Practically the only duty they performed as junior officers was at sea, interspersed by short tours at posts in the United States until they reached field rank when all of their duty thereafter was usually home duty.

It should not be thought, however, that these officers were totally uneducated as there was a considerable accumulation of military and naval knowledge with which the progressive officer was supposed to be familiar. As early as 1815 American editions of books on tactics were available, while previous to that time study was made of English books on that subject. Not long afterwards Winfield Scott's Tactics became standard and still many years later was superseded by Upton's Tactics, which incidentally was written by one of the best thinkers ever produced by the United States Army. Standard manuals regulating different fields of activity were avvailable throughout most of the early period and progressive officers were expected to be familiar with them. The tactics for Marines at sea consisted of the relatively simple proposition of Marines with muskets delivering an effective fire from the deck and tops of ship while a boarding party went aboard the enemy ship or in the use of such fire in preventing enemy's boarding parties from coming aboard their own ships. There was ample opportunity to learn by practice the tactics of landing force operations. The history of the United States Navy abounds with examples of this form of operation which took place in all parts of the world and few Marines escaped that experience.

The Marine Corps did not differ materially from either the Army or Navy in not having formal schools of instruction for its officers during the first century of its history. The first formal attempt for an officers school in the Navy was not undertaken until 1885 when the Navy War College was established. Officers schools in the Army, other than garrison schools, began a few years previous to that time. The sessions of the Navy War College at first only lasted a few weeks. After the first year of its existence it was taken over by Captain Alfred T. Mahan, the greatest thinker, no doubt, that the United States Navy has ever produced. Under his guidance the second class began September 1, 1886, only to run for a few weeks. The third class beginning in September, 1887 was composed of 22 officers of the Navy and Marine Corps and had a slightly more extensive course. This is the first record that the writer has been able to find of Marine officers attending any regular service school. They attended sporadically the following classes conducted at that institution, which incidentally had its humble beginning in a discarded poorhouse on Coaster's Harbor Island near Newport, R. I. During these years of its origin the Navy War College paid a great deal of attention to the study of torpedoes which were then being perfected. Some of our officers developed a proficiency in this technical knowledge. One of these as noted below obtained wide distinction in that field.

THE BACKGROUND OF THE FIRST MARINE OFFICERS SCHOOLS

From the very beginning we find that officers schools in all branches of our service were closely related with examinations for promotion. Throughout the whole history of service schools their curriculums have closely paralleled the prescribed list of subjects required on examinations for promotion. Prior to the closing decade of the nineteenth century promotions were practically always made by seniority and upon the officers' records. The step which first led to a system of examinations for promotion and schools looking to the preparation of officers for those examinations in the Marine Corps was taken by the Army.

By an Act of Congress, approved October 1, 1890, all officers below the rank of brigadier general in the Army were required to stand a formal examination prior to promotion to the next higher grade. The Act provided that the scope of the examination and its procedure should be prescribed by Executive order. The system so established provided that if an officer failed, the next below him to pass the required examination was promoted to the vacancy and if upon examination he failed physically he was retired in the rank to which his seniority entitled him. For other failures he was suspended for one year and if he again failed was honorably discharged with one year's pay. There is strikingly little difference in this initial system to that which prevailed until a few years ago. This decidedlv forward step by the Army was not long overlooked by the Marine Corps.

The newly-appointed Colonel Commandant of the Marine Corps, Charles Heywood, was not far behind the steps taken by the Army. He recommended that an additional law be enacted to apply the identical system which had just been initiated in the Army to the Marine Corps. By an Act approved July 28, 1892, that system with the necessary modifications such as provision for two navy medical officers to be members of the Marine examining Board was enacted for the Marine Corps. A

part of the Act, taken over from the Army law which had a curious backward look to protect the old fellows of the Army and Marine Corps, is of peculiar interest, and reads as follows:

> "And provided further, That the examination of officers appointed in the Army from civil life, or of officers who were officers of volunteers only, or were officers of the militia of the several States called into the service of the United States, or were enlisted men in the regular or volunteer service, either in the Army, Navy or Marine Corp, during the War of the Rebellion, shall be conducted by boards composed entirely of officers who were appointed from civil life or of officers who were officers of volunteers only during said war, and such examination shall relate to fitness for practical service and not to technical and scientific knowledge; and in case of failure of any such officer in the re-examination hereinbefore provided for, he shall be placed upon the retired list of the Army; and no act now in force shall be so constructed as to limit or restrict the retirement of officers as herein provided for."

Just who all of this protection was provided for is not quite evident but it must be admitted that the art of wording legislation to fit the need of certain individuals was well developed even at that time.

The procedure and scope of examination for Marine officers under the new system was laid down by Navy Department General Order No. 403, dated October 14, 1892, which prescribed a procedure almost identical with that still followed and gave a list of subjects in which the candidate was to be examined which bears a striking resemblance to that which was followed for many years afterwards. The subjects of guard duty, drill, small arms firing, law, field engineering, signaling, military topography and minor tactics was not unlike the list which still applies. Some variation is noted in that the subject of torpedoes and duties on board ship were then part of the prescribed examination. The examinations to the field officers' grades required the writing of an essay which could be submitted prior to the taking of the examination. This list of subjects closely paralleled those which had been prescribed by Executive order for the infantry of the Army in the previous year and then in turn are substantially the same as the course of study at the Cavalry and Infantry School which had been established at Fort Leavenworth some ten years previously.

Not to be outdone in any way by the Army and in anticipation of the establishment of a regular system of examination for promotion of officers in the Marine Corps, Colonel Heywood did not wait for the enactment of the law requiring examinations but anticipated it by the establishment of the now-famous School of Application. This school had its humble beginning by Headquarters Marine Corps General Order No. 1, dated May 1, 1891. This order which was republished in the May, 1933, issue of this magazine need not be repeated in detail. It provided in brief for a course of study which closely paralleled the list of subjects later prescribed for promotions as outlined above and provided for the establishment of the school at the Marine Barracks, Washington, D. C. Instruction was provided both for commissioned and non-commissioned officers. The course of study anticipated many of our future small wars be prescribing that instruction be given "in the duties of guards when embarked, landing and campaigning with the naval brigade, and the best formation for fighting against superior numbers armed with inferior weapons."

Pursuant to the above-mentioned order and under the guidance of Captain D. Pratt Mannix and First Lieutenant T. C. Prince the School opened on July 1, 1891, with the following members of the Naval Academy class of 1889 as students: Louis C. Lucas, Bertram S. Newman, Charles G. Long, Ben H. Fuller, Robert McM. Dutton, Julius Prochazka and Edward R. Lowndes. But let us digress for a moment and note the training and background of the father of our officers school system. His life and experiences are typical of the old Marine Corps.

D. Pratt Mannix's first service was in the Navy during the early years of the Civil War as Captain's Clerk on the *Ohio*. In that capacity he took part in a number of engagements with the flotilla operating on the Mississippi and was made Acting Master's Mate in March, 1863, and while in that rank took part in the Siege of Vicksburg and in the attack on Hains' Bluff. In November of that year he was made Acting Ensign and in March of the following year took part in the Red River campaign on board the Steamer *Cricket* and the iron-clad steamer *Chillicothe*. In August, 1864, he was placed in command of the naval rendezvous at Cincinnati and three months later back on board a steamboat operating on the Cumberland River, assisting in the attack on Nashville. On February 14, 1865, he was commissioned a second lieutenant in the Marine Corps, receiving at the time highly congratulatory commendations from Admiral Porter for his services in the Navy. He was attached to the Marine Barracks, Washington, upon accepting his commission and on April 15 was ordered aboard the Monitor *Saugus*. During the succeeding years of peace he did the usual round of post duty in the United States and while still a second lieutenant several short tours of duty at sea. He was promoted to first lieutenant in February, 1870, and continued his rounds of shore station and sea duty with a three-year detail in the Quartermaster's Department during which time he helped to develop a system of accountability. On May 1, 1876, at his own request he was sent to the Artillery School at Fort Monroe, Va., from which school he graduated and soon afterwards attended the Navy Torpedo School at Newport, R. I. He was then transferred aboard the steamer *Ticonderoga* for a two-year cruise around the world. During part of this time that ship was on the Asiatic station, and Mannix acted as secretary to Commodore Shufeldt. In November, 1880, he returned to Washington and was again ordered to report to Commodore Shufeldt at the Navy Department for another cruise to the Far East on the *Ticonderoga*. At the request of the Chinese government through the Department of State he accepted a post as Torpedo Instructor for the Chinese Army, during which duty he was granted leave of absence from the Marine Corps. The Emperor of China decorated him and made him a member of the Order of the Imperial Dragon for distinguished services rendered the Chinese Empire. In October, 1885, he returned to Washington for duty and was shortly afterwards again sent to the Far East as Fleet Marine officer on board the flagship *Brooklyn*. He was promoted to captain in December, 1885, and returned to Headquarters for duty in 1887 and was again detailed to duty in the Quartermaster's Department. He remained in the vicinity of Washington and assumed the position of officer-in-charge of the School of Application upon its organization as indicated above. He died in February, 1894, while still in charge of the school.

The course of study which Mannix developed for the School of Application was contained in his report to the Colonel Commandant at the close of the first school year, published in the Annual Report of the Commandant for 1892, and republished in substance in the above-mentioned article in this magazine, shows that he was a man of considerable thought and creative ability. He initiated a system which, with minor changes, was followed for many years afterwards. That the scope of his instruction was thorough is indicated by the questions which he asked his little class on their final examination which questions are also reprinted in the above-mentioned article.

At the close of the first year of the school a board of visitors carefully examined its results and reported that a real forward step had been taken in the education of Marine officers. The course for this class and for several succeeding classes was designed primarily to supplement the course of instruction of the Naval Academy from which source practically all Marine officers for several years afterwards were obtained. During the first course of instruction the class was taken to the rifle range at Indian Head, Md., which procedure was followed by many other officers schools. Unfortunately there were no troops available to be used in connection with the school at the time as desired by Captain Mannix due to the fact that all available Marines were maintaining a quarantine camp at Sandy Hook, guarding immigrants as a result of an outbreak of cholera.

From these beginnings the little School of Application struggled on in spite of many discouraging circumstances. In the second class appeared the familiar names of Catlin, Neville, Treadwell, Radford and Lawrence H. Moses. The future Commandant of the Marine Corps in the class made a sufficient impression to be retained as an instructor in the school. After the death of Captain Mannix, Captain Paul St. C. Murphy became officer-in-charge of the school. The third class contained a number of officers who have recently been transferred to the retired list as generals and colonels. Our Commandant was one of the members of the class which began the course in September, 1894. General Pendleton, then a first lieutenant, became an instructor on the staff of the school during that school year while General Lane relieved Neville as an instructor. General J. T. Myers, then a second lieutenant, was appointed an instructor in March of the following year, while Colonels Lincoln Karmany and Charles Lauchheimer delivered lectures in their respective specialties—small arms and naval law and procedure. Upon the recommendation of the officer-in-charge of the school the course of instruction was extended to one full year, one month of the additional time to be devoted to the study of naval ordnance in the Naval Gun Factory at Washington and three months in instruction at the Naval War College and the study of torpedoes at the Torpedo Station at Newport, R. I.

The attendance at the school so far had been reasonably successful as four more officers and a number of non-commissioned officers had been made available as students. During the forthcoming school year only three officers were made available to take the course, which they completed including the instruction in ordnance and with four months at the Naval War College. The course of instruction still remained substantially the same as during the first term of the school. The Department of Military Art gave instruction in the high-sounding titles of grand Tactics and Strategy. During the following school year the course was irregularly pursued with only two students, Lincoln Karmany and Melville J. Shaw, the former being required to go it alone during part of the course due to the latter's illness. The members of the class were required to do their school duties in addition to work on the post. The course of study during that year underwent some changes. The study of the obsolete spar torpedoes was stricken from the list of subjects to be studied, while instruction in field telegraph and topography were emphasized. Prior to this time English text-books in tactics had been used, but on recommendation of the board of visitors Wagner's Organization of Tactics was adopted, while the works of Von der Goltz were added to the list of books to be studied. The study of torpedoes was discontinued at the school and instruction was received in that subject while the students were at the Navy War College.

The scope of examinations for officers for promotion was considerably changed by Navy Department General Order No. 478, September 4, 1897. It was given more in detail by that order and the practice of requiring the candidate to make a topographical sketch was initiated. Considerable revision was also made in the list of prescribed text-books. In addition to the official regulations, general orders, etc., the following then standard text-books were prescribed:

Abridgement of Military Law	Winthrop
Infantry Fire	Batchelor
Manual of Field Engineering	Beach
Military Topography and Sketching	Root
The Service of Security and Information	Wagner
Naval Gunnery	Ingersoll
Small Arms Firing Regulations	Blunt
Drill Regulations, Infantry and Artillery	U. S. Navy
United States Naval Signal and Telegraph Code	

The order further provided that graduates from the School of Application should be exempt from promotion examinations for a period of three years.

During the following year only three officers were made available as students, Doyen, Bannon and N. H. Hall. The school was hurriedly closed on April 18, 1898, as the result of the outbreak of the War with Spain—a form of interruption to which Marine Corps Schools have often been subjected. During the Spanish-American War, the succeeding Philippine Insurrection and the Boxer uprising in China the officers who had attended the School of Application were given ample opportunity to apply the knowledge of military science which they had gained in the schools. The results of these operations show conclusively that much had been accomplished by the few brief years of this little school.

The Marine Corps was substantially increased by temporary personnel shortly after the outbreak of the War with Spain. During this expansion, forty-three temporary officers were added. They as well as the regular enlisted personnel were mustered out in March, 1899, but under the Act of March 3 of that year a number of these officers were given regular appointments in the Marine Corps. Due to this substantial increase in the Corps which allowed forty-three additional officers, thirty of the former temporary officers were immediately commissioned first lieutenants, leaving the remaining vacancies still to be filled. Examinations for promotions growing out of this increase in the Corps were temporarily waived and the promotions were made subject to examination within one year or earlier if desired. By November, 1900, time and personnel were again available and the

School of Application started a class of eight officers which finished the prescribed course the following May. General Russell was the senior instructor of this class, under the general direction of Colonel B. R. Russell. By the end of the year allowed for the taking of the promotion examinations referred to above, several officers had failed to pass the prescribed examinations due to the impossibility of proper preparation while on field duty and various other reasons. A special class for eight of these officers to last for seven months was opened on November 15, 1901. The course was specially designed to prepare for the forthcoming examination. The progress of the class was sufficiently rapid to warrant the making of a report on December 20 that all of the class were ready for the forthcoming examination. The work of the School of Application was supplemented by garrison schools for officers conducted at some of the other posts of the Marine Corps.

The rigorous duty which required practically all Marines in the Philippines and other points in the Far East prevented the carrying out of a regular schedule by the school the following year. In May, 1903, the school was moved to Annapolis where under the command of Major Charles A. Doyen and with Captain John H. Russell as senior instructor it was reestablished and a class of fifteen newly appointed officers started the course which was designed to be completed in one year. The call for officers in the Philippines necessitated the discontinuance of this class at the end of six months and most of the officers were transported to that station for duty. On September 1, 1904, another class of twenty-nine newly appointed second lieutenants entered the school at Annapolis to take the course of study which had been considerably enlarged and improved upon. Plans were made at this time for all officers below field rank to be put through that school as rapidly as they could be made available. The school was housed in unsuitable quarters and barracks which proved to be quite a shock to some of the newly appointed officers from civil life. The plans for the reorganized school called for strict discipline which caused not a few members of the class to feel that they were being treated like enlisted men. One officer of the class in protest of the strict discipline of the school expressed his sentiments by attending a masquerade ball in Annapolis dressed as a convict. He was promptly sent back to the barracks much nearer a convict than he expected to be. One of the inevitable bugbears of the school was the sketching of complicated breech-blocks and other mechanisms of naval ordnance. In addition to their course of study the students were given experience in post officer of the day duty and other routine duties. Before this class had completed a course another section joined it, making a total of sixty-five, a large school for the Marine Corps of those days. This crowding of officers on a small post necessitated the students being placed in a camp in that none too agreeable climate. One member of the class had the misfortune to have his tent and most of his possessions burned before he awoke from a sound sleep and made good his own escape. At the completion of the instruction at Annapolis the class was taken to the Torpedo Station at Newport, R. I., and given a five weeks course of instruction in submarine mines.

By the beginning of the school year in 1905-06 the course of instruction had been very well developed and organized. European ideas of the effect of infantry fire in battle were beginning to make themselves felt in the study of infantry tactics and technique. By this time the courses of study at the school were conducted by the following departments: Infantry, Minor Tactics, Engineering, Law, Gunnery, Hygiene and Signaling. The Department of Infantry gave instruction in infantry and artillery drill, rifle fire, physical drill and general instruction of duties at sea. The Department of Minor Tactics divided its course into the sub-divisions of security and information, organization and tactics, and the conduct of war. The instruction was largely theoretical except for practical exercise in security and information. The Department of Engineering undertook to teach both practical and theoretical Field Engineering and a course in Topography. The courses in Law were much the same as those still in vogue except that a course of lectures on customs of the service was provided and some parts of the navy regulations which were more administrative than legal were taught by this department. The subject of Gunnery was divided into the general sub-division of ordnance and gunnery, torpedoes, and submarine mines. The scope of the first-mentioned course closely paralleled the present course in that subject except, of course, it dealt with the ordnance material then in use. The instruction in hygiene and first aid was made both practical and theoretical and offered valuable suggestions for the care of troops, especially in tropical climates. The student was expected to master all of the systems of flag signaling, the various means of flash signaling and to be able to use the field telegraph. The program for the school prescribed that each member of the class should write an essay as part of the course.

By 1906, however, the rush of attendance of newly appointed officers to the school incident to some substantial increases allowed by the Acts of March 3, 1899, and March 3, 1903, was considerably abated. Only ten newly appointed officers were available to attend the class beginning in that year. By this time expeditionary duty for the Marine Corps in addition to the brigade in the Philippines had units in Panama and with the Cuban Army of Pacification leaving few officers and little time for officers' schools. No regular school session was conducted during the following year. Plans were made for the removal of the school to New London, Conn., but upon the acquisition by the Marine Corps of the Naval Station, Port Royal, S. C., it was determined to move the school to that place. This move was recommended by the Commandant in his Annual Report for 1908 and plans were made for the schooling of the additional officers provided for the Marine Corps under the Act of May 13 of that year.

As the result of examinations for appointing second lieutenants in the Marine Corps, fifty-seven newly appointed officers were made available to attend the Marine Officers' School, as it was renamed, at Port Royal in 1909. This class of the "famous 57 varieties" which was taken from all walks of life and accustomed to all manner of living, found itself congregated on an isolated island, living in old buildings very much unsuited for real comforts of life. The system of strict discipline instituted at Annapolis was continued and the school proceeded with a strenuous course of instruction, both theoretical and practical until December 22, when the class was graduated. An additional section of 24 officers who were commissioned later on in 1909 followed along as a second section of that school and completed approximately the same course of instruction on December 20 of the following year. The course of instruction for these two classes was perhaps the most complete thus far offered. Some troops were available for the use of the

school thus making the course more practical. Then, too, the class was fortunate—some said at the time unfortunate—in that all of these officers were able to complete nearly a full year's course of study before going to regular duty.

Early during the following year the Navy Disciplinary Barracks was moved to the station at Port Royal leaving insufficient space for it and the Marine Officers' School. Prior to the beginning of the next class the school was moved to the Marine Barracks, Norfolk, Va. The school again started all over with the most humble beginnings it had ever had. There was no place for the students to live except in tents, the instructors were required to live in the city and few facilities for instruction were available. A class of sixty newly appointed second lieutenants began the course in September, 1911. The school year was interrupted by an expedition to Nicaragua in May, 1912, when the class was given a hasty graduation and rushed off on field duty to that country.

By the Act of August 22, 1912, a slight increase was made in the number of officers in the Marine Corps and again a class was made available to take the course of instruction. By this time temporary quarters had been provided for the school at the Marine Barracks, Norfolk, and plans were made for the most thorough course of instruction which had yet been offered to newly appointed officers. Captain George Van Orden who had just completed the course at Fort Leavenworth was detailed as officer-in-charge of the school and laid out a course of study for two complete school years. This course closely paralleled that of the Army School of the Line and had in addition substantial amounts of Marine Corps administrative matters, naval ordnance and gunnery, and duties of Marine officers at sea and a course in bookkeeping superimposed upon it. The school opened on December 10, 1912, with seven student officers. A second section of thirteen joined early the following year and were carried along as part of the same class. The course of instruction for the senior section of the class was interrupted by sending all of those officers to the expedition which cooled its heels at Guantanamo Bay, Cuba, for several months during the Spring of 1912 while waiting for something to happen in Mexico. The other section of the class continued its course of instruction and the officers who had been on the expedition rejoined the class in June and during the summer months the entire class did extensive practical work in topography and minor tactics around Gettysburg, Pa. A third section of about twenty joined the class for the two-year course in November, 1913. In the meantime the school had reassembled from the summer maneuvers and was pursuing its regular work at Norfolk. The school managed to continue its course of instruction until the following February when the expedition to Vera Cruz, Mexico, broke and all of the first two sections of the class were detached for expeditionary duty and transferred to the Marine brigade at Vera Cruz. The class which entered in 1913 graduated in June, 1915, after completing practically the entire course while the officers who were detached for duty at Vera Cruz were given certificates without further attendance at the school. By this time the curriculum of the school had reached its most complete pre-war development and contained a great deal of practical work and problems and to some extent the applicatory method of teaching. Standard text books which had been developed by the Army were used in tactics and field engineering. The most complete course in law consisting of the study of elementary law, criminal law and the law of evidence had been introduced in addition to the usually prescribed course of naval law and procedure. Officers were, for the first time, given the much needed instruction in bookkeeping.

One of the basic difficulties of operating an officers' school was strongly demonstrated during the pursuit of the course prescribed for the class beginning 1912. The class was composed of members widely varying in aptitude and with education ranging from less than high school graduate to a graduate engineer from Massachusetts Tech and a graduate student from a large university. The result was what might have been expected—the pace had to be set by the slowest group of the class with the result that the progress made was not what should have been expected for a group of men of the average age of the class. The progress made was certainly not what is being accomplished today in our Basic School. This difficulty was again to arise in a more complicated form in the Company Officers' School after the World War. A few incidents might be cited as suggestive of the attitude of these classes and of the instruction staff during the course of study. The classes were faced each weekend with the inevitable "tree" and were often greeted by the shrill voice of an instructor which they will never forget when he reiterated "I'm going to mark you down." The keenness for the class to be about more serious duties was strongly demonstrated when in the high spirit of adventure and upon two hours' notice they cleared out of the school to report for expeditionary duty hoping that the expedition would continue until the school was completely forgotten.

The next and last class to take the regular course of the pre-war Marine Officers' School consisted of graduates from the Naval Academy Class of 1915, and three other officers who had been commissioned a few months previously. This group of officers pursued a course considerably modified from the two-year course and graduated January 1, 1916. Six Naval Academy graduates of the Class of 1916 were commissioned as second lieutenants in the Marine Corps and were given a brief course only which they finished in November of the same year.

The officer personnel of the Corps was increased by 35 officers by an Act approved June 12, 1916, and again by 220 officers by the National Defense Act of August 29, 1916. A group of officers was commissioned from the ranks in August of that year and hurried off to their new station with very little additional instruction. Another group of twenty-three were commissioned on September 29 and given a brief course of instruction at the Marine Officers' School, Norfolk, and sent off to their new station early in December. A class of forty-two was commissioned on February 6, 1917, and followed, in succession, by several other contingents, none of which was given anything more than a hasty course of instruction and chance to outfit themselves before the outbreak of the World War when they, as well as all temporary officers made during the war, were hurried off to their new stations without any attendance at Marine Corps Schools.

Advanced Base School

The only formal attempt at running officers schools in the Marine Corps other than for those designed for newly appointed officers was the Advanced Base School which opened in New London, Conn., in January, 1911, and continued for some time thereafter at that place and at the Marine Barracks, Philadelphia. By that time the idea of the Marine Corps being used for seizing and defending an advanced naval base beyond the seas had become basic

(*Continued on page* 47)

THE SEMI-AUTOMATIC RIFLEMAN

LIEUT. MELVIN M. JOHNSON, JR., U.S.M.C.R.

The editor has asked for pictures of a semi-automatic rifle to include with this article, but unfortunately I am unable to furnish any, for the reason that any improved and perfected rifles of this class are theoretically official secrets. Moreover, the writer's forthcoming contribution to the field has not yet reached the stage where pictures would be advisable, although patent application has been filed.

■ The Ordnance Department is alleged to have adopted the .30 Garand semi-automatic rifle which will be designated as the U. S. Rifle, calibre .30, Mark I. A brief reference to this weapon was included in the article, "What's New In Semi-Automatics?" GAZETTE, November, 1935. I have been ordered to refrain from making any disclosures about this rifle in detail.

However, one fact is obvious at this writing. The service will without doubt be armed with a semi-automatic shoulder rifle in the near future. For many years our Ordnance Department has struggled to give the service such a weapon. The problem has been extremely difficult. Some of the obstacles were indicated in the previous article on this weapon. Books might be written on the innumerable attempts which inventors have made in this direction. Our Ordnance Department, in particular, has conducted exhaustive tests. The results of their research they have generously passed on to guide those civilians who have worked on this problem. Bear in mind that an inventor is aided immeasurably if he knows what not to do, for the repetition of experiments is usually a waste of time and money.

It is remotely possible that some new solution more satisfactory than any now known may be introduced to the service. If this should happen and the Ordnance Department should adopt and build that model, I submit that the numerous failures of the past will have served in part as a background for the successful weapon.

1. DISCUSSION OF THE OBJECTIVE

I submit that our objective is now and has for some time been FIRE-POWER. Napoleon once said: "Le feu est tout, le reste peu de chose." Infantry and artillery have always been concerned with the amount of fire and the rapidity with which it might be delivered. Within the last hundred years we find Tyler Henry who originated the famous lever-action Winchester rifle; Paul Mauser who gave us the famous Mauser bolt system and magazine; Maxim who gave us the machine gun; Browning who developed our present machine gun, B. A. R., .45 pistol, and other automatic arms including the Remington auto-loading hunting rifle; Thompson who designed the sub-machine gun; John Garand who has worked on the best gas-actuated service rifle yet produced; Lewis who invented the well-known machine gun, and many others.

You will agree that we have progressed toward more and more fire power. The machine gun is really just an engine. It weighs so much that it cannot be reduced to rifle weights. That is because the self-loading mechanism is complicated, and not because of any complication in the firing mechanism. The only real difference between a semi-automatic rifle and a machine gun lies in the fact that with the latter you fire by bursts, with the former by pulling the trigger for each shot. The trigger mechanism for the semi-automatic is more difficult to build. The famous chaut-chaut and the B. A. R. were merely crude attempts to make a compromise semi-automatic with machine gun possibilities. The sub-machine gun is a compromise as well. Such weapons may be fired either by bursts or pulling the trigger successively. But how often do you order your B. A. R. man to fire full automatic? You know very well that the average man can not control the burst.

Usually our ultimate objective is an ideal. I am going to set forth my conception of the ideal situation with respect to small arms and challenge serious disagreement: The operating mechanism of the shoulder rifle, of the pistol, of the sub-machine gun (if necessary), of the machine gun, of the fifty calibre machine gun (tanks and AA) will be identical. The mechanism will be absolutely simple and well within the capacity for understanding of a child. The rifle will weigh about nine pounds; the machine gun will weigh about twelve to fourteen pounds with cooling system; the other arm will weigh less than the present Brown machine gun. Moreover, this mechanism shall be used on the 20mm. or 37mm. automatic cannon for AA and tanks. The rifle, however, will use a box magazine, the machine gun a modified drum or belt feed. You will teach the recruits the rifle. You will show them how to load the machine gun. Over ninety per cent of the time used in trying to teach the function and dismounting of the present machine gun will be eliminated. If the rifleman is ordered to take over a machine gun in an emergency he will have required very slight training for the job. In fact, it is very possible that the machine gun might use most of the basic parts used on the rifle. Of course the machine gun would be mounted on a tripod and the weight of the gunner would be transmitted by some means to the gun to keep it steady. All of the established principles and systems of fire would be retained. The barrels of all types of arms should be dismountable in the field in case of wear. By inserting a pin or block the rifle could be changed to a conventional bolt action weapon if desirable for training in marksmanship, slow fire. The recoil of the rifle would be reduced because that force would have been expended in furnishing the operating power. All of the arms based on this mechanism would be cheap and simple to construct in production. Frills and excess parts would be avoided in every case. Do you think this ideal can be achieved? I do.

2. DISCUSSION OF THE PRINCIPLES OF SIMPLICITY AND ECONOMY

The U. S. Supreme Court, in deciding a patent case, once said that "simplicity is the highest state of the art." With respect to the ideal mechanism discussed above, simplicity is vital. In this connection we must consider economy of cost so the two go hand in hand. An examination of scientific progress shows us that mechanisms become more and more simplified.

The late Herbert Spencer whose writings were formerly in vogue, once stated the process of evolution. I recollect this passage:

"Evolution is an integration of matter and a concomitant dissipation of motion, during which matter passes from an indefinite, incoherent, homogeneity, to a definite, coherent, heterogeneity, and during which the retained motion undergoes a parallel transformation."

It is a far cry today in our military science from the days when screaming hordes dashed madly against each other without system or coordination. Today an army consists of a number of controlled teams. One unit builds bridges, one furnishes materiel, one fires heavy shells, one occupies definite objectives, one covers the air, and so on. We have a definite, coherent, heterogeneity. The danger lies in the fact that each branch is so complicated that the other branches can not fully appreciate its problems. So, too, the average rifleman does not have time to understand a complicated machine gun. There are so many training hours and no more. In consequence, if we can simplify our small arms so that by learning one we have learned them all, and so that the basic weapon itself is quickly understood, then we shall have effected a tremendous stride in the service. Thus we seek to enforce Simplicity and Economy. With the latter we mean economy of funds and of time. These points, I submit, are especially applicable to the Marine Corps, for in our branch every officer and enlisted man is expected to operate a wide variety of weapons at a moment's notice.

3. Discussion of Mobility in Relation to Fire Power

In our consideration of the ideal small-arms mechanism for automatics we suggested that the rifle would weigh about nine pounds and the machine gun twelve or fourteen pounds. The Chief of Infantry recently raised the point in a statement on Army Day, that the problem of the infantry was to reconcile fire power and mobility. Obviously, heavy weapons and increased numbers of cartridges tend to hamper mobility. For this reason it is understood that the machine gun company will no longer form a part of the battalion in army organization. It is held that the machine gun seriously reduces the mobility of rifle units.

If we equip each rifle squad with seven or eight semi-automatics, and each man carries up to two hundred rounds of ammunition, the S. A. rifle squad will then have increased its fire power to that of the two or even three-squad section, yet will still retain its usual mobility. In fact some authorities have suggested that the semi-automatic rifle would not only render the B. A. R. obsolete, but the conventional .30 machine gun as well.

Referring again to our ideal mechanism, the machine gun need not weigh more than the B. A. R. including tripod, cooling system, etc. With such weapons the conventional machine gun fire can easily be retained in combination with the infantry battalion.

Bearing in mind that weight hampers mobility generally, let us subdivide this discussion to consider what we mean by fire power.

a. Different missions require different kinds of fire power. Thus, we must have dense fire at close range in some instances, penetration against tanks and planes, etc., in other situations, and effective, long-range fire in others. The fire in some cases must be prolonged and sustained, light or heavy, and may or may not be effective if of necessity it is intermittent. For example, in many situations we might require the employment of a .50 automatic, or a 20mm., or a 37mm. of the "pom-pom" type for aircraft and tanks. These weapons have very serious drawbacks, for the bigger the weapon, the slower to fire, the more difficult to move, the easier to spot, the farther to be away, the less capable of prolonged fire at a high rate, the harder to supply with ammunition. It has been observed of the German artillery in the World War that the bulk of the pieces were so heavy as to render it impossible to follow up promptly the rapidly-moving infantry to be supported. This was a factor in slowing up the otherwise rather efficient 1914 advance of the invaders. On the other hand the French 75mm. though quite mobile was severely outranged by the heavier German weapons. However, the 75mm. could deliver more rounds per minute and for more minutes.

Returning to the class of automatic cannon rifles such as the 37mm., 20mm., and .50 cal., it is observed that the amount of heat units generated under rapid fire increases most extremely in proportion to the increase in calibre. For example, if the calibre .30 machine gun be assumed to be 1, the calibre .50 requires 4.8 times as much cooling, the 37mm. 51.4 times (37mm. is about 1.42 calibre or roughly five times the bore of the .30). It was for this reason, as well as reduction in the weight of the cartridges, that experiments were made with the .276 calibre. Therefore, the larger the calibre, the more intermittent the fire of the automatic weapon, it is concluded.

b. It is submitted that fire power does not simply mean a "lot of shots fired fast." We must consider the effectiveness of the fire. We want as many hits with as few rounds fired as possible. The semi-automatic rifle is designed to give us a rapid succession of carefully-aimed shots. It is not a bullet-squirter. If four enemy targets appear simultaneously at ten-yard intervals for a period of four or five seconds, you can score as many hits. With the Springfield an ordinary rifleman would be lucky to get in his second shot. Roughly speaking, in combat the semi-automatic rifleman is equal to three ordinary infantrymen. He can inflict three times as many casualties. Therefore, the new rifle will increase your fire power three-fold.

4. Discussion of Mass and Economy of Force

This manifest increase in fire power, and the development of new types of mortars, bombs, bounding shrapnel, and the like, will force us to increase the intervals between men in the infantry. I respectfully submit that the ancient practice of close order must be discarded. Enough men were slaughtered by adherence to close order in the World War. The accent will be on more weapons, less men. The number of men in the service of supply will increase, and the number in the line will decrease. It costs money to train men to employ weapons, and excessive casualties will be very expensive. A massed target is an invitation that will be readily accepted by the enemy on every occasion. Even the approach march will become hazardous, due to airplanes and artillery. Once in the zone of contact extensive deployment will be mandatory. I recall statements regarding the efficiency of the Boers with their then-modern Mausers. Undisciplined and ill-trained, they nevertheless could use those Mausers, and it is reported than on several occasions less than two dozen riflemen held up several British battalions. The British, therefore, were forced to make "an abnormally early deployment in lines of widely-extended men." This development of weapons, including the semi-automatic rifle, will have the same effect both in position warfare and in a war of movement.

Many authorities in the service are adamant with respect to the principle of close order. It creates discipline and obedience to commands. Moreover, it is held that

weapons are immaterial as compared to principles of tactics; that the latter never change. I submit that while this is true enough, the fact is that the *application* of the principles does inevitably change, and that *weapons* change the *application* in most instances.

With respect to rules which are allegedly inviolable, there is an analogous situation in modern jurisprudence. It was the fashion of the courts not long ago to follow established decisions rather blindly. "Stare decisis" was a dominant phrase. But many of these no longer functioned very well because conditions had changed. Gradually jurists began to realize that the very rules we blindly followed were in fact once created out of whole cloth to satisfy particular requirements at a particular time. Then the rules were applicable. Today they are not. Therefore we change them by statutes or by decisions. Judges overrule an earlier case and say it is bad law. They mean it does not work out properly any longer. Judges do not suddenly find the proper rule inside a case-book. They make a new rule by decision because the circumstances require it. Therefore, when we speak of immutable principles we must be certain that they are immutable. If any principle is immutable it is the principle of the objective, as well as the other eight in most cases. The writer has just published a law review article on "equity" in which the nine principles of war have been set forth as applicable to legal problems.

Close order drill in one period of history bore a direct relation to battle technique. Today, it is the means to an end. The end or objective is discipline and the training of men to obey combat commands. With respect to the movement of troops in the theatre of operations close order drill is an end in itself. Consider carefully whether the manual of arms teaches men to handle their pieces in combat; to fire and hit, load and fire. Again, it is a means, not an end. The men must be trained to operate their weapons. The principle of economy is being ignored if we spend much time on training which has no direct relation to fighting. The crew on a 75mm. gun must be trained and disciplined on their gun, not on the parade ground. Remember the principle of economy of time. Modern war is weapons, not parades. What price dress swords?

5. The Principle of Cooperation

With the advent of the semi-automatic rifleman and further developments in the field of weapons and explosives, the inevitable increase in intervals between individuals and combat units will create a difficult problem in the maintenance of liaison and coordination of a command. Many authorities have placed Cooperation at the head of the nine principles. Space does not permit an extensive discussion of this question. I believe the radio will have a tremendous effect in this connection, however. The short-wave, police-type radio system suggests infinite possibilities. Recently a drill unit performed perfectly without audible commands, as it appeared. But the audience later discovered that each man had a tiny receiving set in his helmet, and the commands came from the sending set in the balcony of the armory. Perhaps the cartoon of "Buck Rogers" is not entirely beyond possibility with regard to such communication.

Since each rifleman will become more potent, we shall probably change our concept of the squad as the smallest unit. Perhaps the men will work in pairs or threes. Even now the Marine Corps figures two squads to the section. Perhaps corporals will command four men, sergeants eight, "top" rank non-coms and second lieutenants sixteen semi-automatic riflemen. Remember that each man will become more important. Perhaps we will have groups of twelve in the section instead of sixteen, eight men armed and four men to maintain the ammunition supply and act as runners. In that event we might have four men per squad armed with .30 rifles, plus two ammunition carriers armed with a modified pistol which they may employ in emergencies. The Thompson gun is too heavy for such work, but it is very possible that a lighter arm of the type may be developed which can be carried in a holster. The reader is urged to consider such future changes at his leisure. They are certainly not remote. Bear in mind the "time marches on."

In this, as in other contributions to the Gazette, I have not attempted to hand out all the answers. My objective has been chiefly to stimulate thought and consideration of certain subjects which seem important in the field of military and naval science.

6. The Offensive, Security, Surprise

The principle of the Offensive has been more or less involved in our previous discussion. If we can give the infantry a light, semi-automatic service rifle and machine gun, mobility and fire power can be combined. Therefore the Offensive is well taken into our consideration. More fire can be brought to bear on the enemy during our attack.

In the broad sense Security must be maintained in our national defense by providing the very best materiel and equipment available. In the combat zone an infantry unit will have more effective advance, flanks, and rear guards when armed with the semi-automatic rifle.

Surprise will be more often possible in combat because less men can inflict more casualties and their movements are not so obvious to enemy intelligence.

7. Other Aspects of the Semi-Automatic Rifleman

The infantry school at Fort Benning has conducted tests which prove that less training is required to teach average troops marksmanship with the semi-automatic. Of course much time is spent in teaching rapid-fire with the Springfield. Slow fire training is identical. This school concludes that one semi-automatic rifleman is equal to three ordinary riflemen.

However, in the training of the new riflemen great emphasis must be laid on fire control and fire discipline. Blazing away without careful aim will result unless this factor is drilled into the men. Many authorities condemn the automatic for this reason.

We have already suggested that because of increased efficiency less riflemen will be employed on the firing line. Therefore, those selected will be specially-trained marksmen, thoroughly grounded in fire discipline as a result of extensive practice in actual firing, as distinguished from drill in the manual of arms.

The Marine Corps is an especially fertile field for the new rifle because so much emphasis is placed on small arms technique. If we took only those men qualified today as experts on the service course, we would have a very substantial body of tremendously efficient semi-automatic riflemen.

These men will be called upon to exercise more and more their own initiative with the new arm. Individualization of the rifleman will bring us back to the days of the Indian fighters. With such an arm the infantry will become more important than before, Sunday supplement experts to the contrary notwithstanding. Recently the

(*Continued on page* 55)

AN INTRODUCTION TO THE GALLIPOLI CAMPAIGN

Captain Arthur T. Mason, U.S.M.C.

PART I (*Continued*)

The General Situation

So, at 1100, we will leave this battalion at X Beach, somewhat over-extended but opposed by a force much smaller than its own, and ready to advance.

W Beach

The landing at W Beach was one of the two which were seriously opposed. This beach consists of a strip of sand 350 yards long and from 15 to 40 yards wide. Close to the water's edge, a deep belt of wire extended almost the whole length of the beach. Trip wires had been laid in the water just off shore and on the beach itself were a number of land mines. On each side of the beach, the cliffs are quite steep but in the center sand dunes make an easy approach to the ridge overlooking the sea. The slopes in front and the summits of the cliffs on each flank were defended by short lengths of trench while at least two machine guns, concealed in holes in the cliffs and thus defiladed from ships' gunfire, defended the main obstacle. The low ridge commanding the center of the beach was in turn commanded by other trenches on the high ground to the northeast and southwest and, at a range of 600 yards, by the nearer of two redoubts on Hill 138. These were protected by wire and the approach to them was devoid of cover. The garrison was one company of Turkish infantry.

Of the battalion making the landing, two companies were to attack to the right and one to the center and left, while the fourth company was in battalion reserve. Covered by the bombardment, the tows approached the shore. Fifty yards from the beach the towlines were cast off, the bluejackets bent to the oars, and the 32 cutters moved slowly in. Up to this time the shore had been quiet, but just before the first boat grounded, the defenders opened a heavy fire and inflicted many casualties. The Fusiliers jumped into the water, only to be blocked by the wire which had been undamaged by the naval bombardment. The defenders had also been little harmed and were able to man their firing positions in the ten minutes between the lifting of the naval gunfire and the arrival of the boats. During this time, and while the British were tearing and hacking their way through the wire, the Turks covered the beach with fire from three sides, receiving practically no fire in return. The British continued to lose heavily and the second trip of the boats was delayed by the necessity of disposing of the dead and wounded remaining in them. However, small parties managed to get through the wire and take the trenches in the center of the beach.

Meanwhile, the following boats observed that a landing could be made on the ledge of rocks just to the north of the bay. They moved toward this point, landed without opposition, took the defenders in the rear, and cleared the left flank of the beach. They then moved towards X Beach and connected up with the Royal Fusiliers on Hill 114.

On the right were two redoubts, one on Hill 138 and another 400 yards to the southeast. Only one of these had been discovered by the British and only one was mentioned in the plan of attack. As a result, two attacking parties from Beach W moved to the right but each attacked a different strong point, believing it to be the one mentioned in the orders. As a result of these separate attacks, neither party was able to make any progress. However, there had been sufficient advance so that the landing place on the beach was no longer under direct fire.

V Beach

The landing at V Beach was the most seriously opposed of all and the lack of success at this point was responsible for the collapse of the attack as planned. The natural features of the landing place were very favorable for their defense. The beach is 300 yards long, about 10 yards wide, and bordered in most places by a low bank about five feet high. The beach lies at the foot of a natural amphitheater which rises by gentle slopes to a height of about 100 feet. It was dominated on the west by Fort No. 1 at the top of the cliffs, and on the east by the old fort and village of Sedd el Bahr. These forts and buildings had been ruined by the bombardment of the fleet but afforded excellent cover for riflemen. Various obstacles and trenches formed a defensive system which connected up on the west with the defenses overlooking W Beach, and terminated on the east in the redoubt on Hill 141.

The natural strength of this position as well as the defensive efforts of the Turks were known from previous reconnaissance. In deciding to land at such a place, the effects of naval gunfire were highly overestimated, for every part of the defenses was visible from the sea and if there was ever a place where naval bombardment would blot out the defenders, V Beach was it.

In order to increase the number of men which could be landed in the first few minutes of the attack, the *River Clyde*, an old collier, was to be grounded on the beach carrying 2,000 men who would pour forth and overwhelm the defensive remnants left by the bombardment. Thus there were two battalions to land in this fashion and one, the Dublin Fusiliers, from open boats. In addition, half a company was to land at the camber east of Sedd el Bahr and take the village from the flank.

In accordance with the plan, the defenses were bombarded for nearly an hour, but the effect on the trenches was negligible. Here, too, in the interval between the end of the bombardment and the arrival of the boats, the Turks had time to recover from the shock and to re-occupy their positions. As the boats and the collier approached the beach, the shore appeared deserted, but just as the *River Clyde* grounded and the boats were a few yards from shore, the storm broke. Even such sober books as the Official History say that Hell broke loose and Hell yawned. The calm waters of the bay were bullet-lashed into turmoil. Devastating casualties were suffered in the first few seconds. Boats drifted helplessly about with every man in them killed. Many more of the Dublins were killed as they scrambled ashore. Only a few managed to gain the shelter of the low sand bank, where they held on all day, for this

bank marked the limit of advance on V Beach. In fact, only the guns on the *River Clyde* prevented a counter-attack which would have rendered the disaster complete.

Meanwhile, attempts were being made to land from the collier. Wide ports had been cut in her sides to enable the troops to land quickly. Under her bows was slung a platform and, to bridge the gap between the platform and the shore, a small steam hopper accompanied the ship. Three lighters were also towed to help form a bridge if necessary. But when the ship grounded, the hopper sheered off under the fire from the beach. The naval officer who was responsible for the scheme jumped in and swam ashore with a line from the lighters. Standing waist deep in water, exposed to murderous fire, he and a sailor pulled the lighters to shore and, holding them to form a bridge, shouted for the debarkation to begin. As the troops rushed out of the ports and toward shore, concentrated fire from the beach mowed them down. Only a few succeeded in reaching the cover of the bank. The battalion which had landed from boats and the one from the *River Clyde* suffered 70% casualties. An officer coming in on a succeeding tow saw one of the lighters full of men. He jumped in it to lead them ashore; they were all dead. The attempt was suspended and during the whole day the remaining battalion sheltered in the holds of the lighter while a few held stubbornly to that part of the shore which they had gained. (That night under cover of darkness, the troops from the collier filed ashore without a casualty.)

The two platoons landing at the camber managed to get ashore with little loss but, when they tried to advance, were met by a heavy fire from the ruins of the fort and village. They made no progress and eventually the survivors were evacuated.

S Beach

Meanwhile, less than 2 miles in rear of Sedd el Bahr, where one company of Turks was stopping 3,000 British, the battalion of South Wales Borderers had landed at S Beach. This beach was formed of a small break in the cliff. It was an unlikely spot for a landing, only one platoon was posted for its defense, and there was no wire. Two companies landed at the actual beach and were fired on. Another company, in shirt sleeves and without packs, climbed the cliff at the extreme point of Morto Bay and took the Turks in the rear. By 0800, the whole position was safe in British hands. From here it was soon apparent that the landing at V Beach was making no progress but the commander had had no hint of what he was to do in such an emergency. His orders had been to join in the advance. Consequently, he did nothing but consolidate his position.

Employment of the Main Body

Now with this picture of the landings in their early stages before us (Map 4), it does not require a military genius to see that an advance from Y or S Beach, preferably Y, either by troops already ashore there or additional troops, was the proper method to free the southern beaches and allow the main advance to start. This was perfectly apparent to Hamilton, cruising off the coast in the *Queen Elizabeth* and informed of the complete absence of opposition at Y Beach, of the failure at V, and of the slow advance from W. His appreciation of the situation and its possibilities must have been the greater by reason of the fact that the landing at Y Beach had been originally conceived by him. He had no reserve in his own hands, but he had the authority of his position as commander-in-chief and the responsibility for the operation; and Hunter-Weston had five battalions of the 29th Division as the main body, still uncommitted.

Required: Actions and orders of the commander-in-chief at this time, about 0900.

A Solution: Send a message to Hunter-Weston, "Land more men at Y Beach, push forward from there, and let's get the hell out of here."

Historical Solution: At 0920, Hamilton signalled to Hunter-Weston, "Would you like to get some more men ashore on Y Beach? If so, trawlers are available." Hunter-Weston did not reply to this gentle hint, so it was repeated at 1000, demanding an answer, and the reply was received that any alteration of existing arrangements would delay the landing. In other words, it would delay sending men forward into the death-trap. Hunter-Weston, hypnotized by the battle, not fully aware of the situation, made the common error of trying to push against the enemy's strength instead of exploiting his weakness.

To be brief, let us put ashore, as Hunter-Weston did, two battalions of the main body at X Beach and the remainder at W; and then see what happens to the unopposed force at Y Beach whose position on the flank and rear of the enemy defenses seems so promising.

Y Beach

We left these two battalions holding the west edge of Gully Ravine, with some confusion as to who was in command, without orders what to do until the advance reached them, and superior in strength to all the Turks on the toe of the peninsula, a glorious opportunity for a decisive display of initiative by a subordinate commander.

During the morning, the colonel of the marine battalion (who finally found that he was in command) and his adjutant walked across country to within 500 yards of Krithia. The village seemed deserted, as indeed it was, the two Turkish companies in reserve having marched south to reinforce the defenses at the southern beaches. During the day, no orders or information reached Y Beach and about 1500, when the expected advance did not materialize, the colonel decided that his most important duty was to secure the landing place. He withdrew his men from the edge of the Gully and started to dig in on top of the cliff, not too soon, for the time he had wasted was not misused by the Turks. Turkish troops were moving south and, just after 1700, Y Beach was attacked. The force was small and the attack easily beaten off but the Turks, although inferior in strength, attacked again and again throughout the night. They were beaten off and retired at daylight.

About 0700 (26 April), the Turks again formed for another attack. The center of the British line was broken and there were no reserves to fill the gap but the retreating men were rallied, the gap closed, and the Turks driven off in disorder. From then on, not another shot was fired at the Y Beach troops, but these battalions were defeating themselves. As the day dawned, a few men straggled down to the beach. Boats were sent in to bring off the wounded, and some of the unwounded stragglers also embarked. From this time on, all unknown to the colonel on top of the cliff, there

was a constant stream of stragglers. After the Turkish morning attack, he walked around his position and found his right flank trenches empty. He did not feel able to overcome the panic that had affected a large portion of his command, and the withdrawal was allowed to continue.

Hamilton, passing by on the *Queen Elizabeth*, saw the men leaving but did nothing to prevent it. By 1100, all the men on the beach had been taken off and, half an hour later, those who had remained on top of the cliff were also reembarked. All this time, nothing was heard from the Turks (and, despite constant appeals, nothing had been heard from the divisional commander either during the whole twenty-nine hours these troops were ashore) so the withdrawal was accomplished without difficulty but, in spite of the lack of opposition, all the packs were left ashore.

The Turks

There have already been mentioned the defects of Hamilton's character which may be considered largely responsible for this tragic and shameful waste of opportunity. Let us for a pleasant change look for a moment at the spirit on the Turkish side. We may well picture the consternation of the Turkish regimental commander at Krithia when his less than 2,000 men were attacked at five different points, some of them undefended, by 12,000 British supported by nearly 350 ships' guns. The beach was just the delaying position, the main position was in rear. Did he dig in? No, he left that to the attackers and hurled all his available forces in constant counter-attacks through the day and night of the 25th against the superior forces opposed to him.

The picture he had of the situation was expressed by a message sent from the Turkish company at V Beach: "My Captain, either you must send up reinforcements and drive the enemy into the sea or let us evacuate this place because it is absolutely certain that they will land more troops tonight. Send the doctors to carry off my wounded. Alas, alas, my Captain, for God's sake send me reinforcements because hundreds of soldiers are landing. Hurry up. What on earth will happen, my Captain?"

The Turkish commander of the 9th Division, hard pressed at Anzac as well as at Helles, wrote, "I am sending you a battalion. It is quite clear that the enemy is weak; drive him into the sea and do not let me find an Englishman in the south when I arrive." This was the spirit with which the Turks, with a smaller force, made their repeated counter-attacks at Y Beach which, although beaten off, resulted in the evacuation at that point.

Helles Attack Concluded

This section must be quickly concluded. During the night of the 25th-26th, the troops at the southern beaches, exhausted, apprehensive, occasionally attacked by smaller Turkish forces, held on to their positions with difficulty. Reinforced on the 26th, by heroic efforts and with great sacrifices, they took Sedd el Bahr and Hill 141; the line from V Beach to W and X Beaches was joined and four French battalions filled the gap between V and S Beaches.

On the Turkish side, reinforcements were on the way but had not yet arrived. Up to the morning of the 27th, there were only five battalions south of Achi Baba and these had lost 50 per cent as casualties. On the night of the 26th, the Turks withdrew all but security detachments and established a line running roughly northwest and southeast in front of Krithia. On the 27th, the British were forced to rest. On the next day they resumed the advance until they came up against the Turkish defensive position. From this time on the situation began to stabilize. In the face of repeated attacks, the Turkish line was but little changed, while the British held their own against the counter-attacks of the enemy. Here we will leave them to increase their strength, to establish their complicated trench system, to fight their land battles during the months that followed, and turn to Anzac.

Anzac (See Map 5)

The landing at Anzac was in many respects a much different proposition than the landings at Helles. In the first place, the area selected for the landing was not expected to be so well defended as the beaches at the toe of the peninsula. More reliance, too, was placed on surprise. On account of having to wait until after the moon set, the landing could not be made before dawn, but the approach was to be made in complete darkness and the attack was not to be preceded by a bombardment.

Along the shore between Gaba Tepe and Ari Burnu was about one Turkish company. In the vicinity of Gaba Tepe there were some field guns. The divisional reserve at Kilid Bahr was somewhat fatigued and the general reserve at Boghali was much nearer to Anzac than to Helles.

The two divisions of the Australian and New Zealand Army Corps, commanded by General Birdwood, were to make the landing. The corps was then to push eastward toward Maidos in order to sever the Turkish north and south communications. The 3rd Australian Brigade, of about 4,000 men, was designated as the covering force. Its first echelon of 1,500 men was to be taken to within two miles of the shore on board three battleships whence they would be landed simultaneously in twelve tows at 0430. The second and third echelons would land immediately after from seven destroyers which would pass through the line of battleships and approach to within 100 yards of the shore, each towing a number of ships' lifeboats. The main body of the 1st Australian Division was to follow immediately after in transports. It was calculated that all three brigades and the mountain artillery would be ashore by 0900, and that the other division of the corps would follow as soon as possible. Every man, in addition to rifle and pack, was to carry 200 rounds of ammunition and three days' rations, a total load of 88 pounds. The landing was to be made about a mile north of Gaba Tepe.

Terrain

In order to understand the landing and subsequent operations at Anzac, it is necessary to appreciate in some detail the involved and difficult terrain of the area. The main Sari Bair range extends southwestward in an unbroken chain from a point some miles inland of Suvla Bay to about three-quarters of a mile northeast of Ari Burnu. There it divides into three long and tortuous spurs or ridges which are, in turn, split up by countless gullies and depressions and eventually reach the sea coast between Ari Burnu and Gaba Tepe. Near its center, the range forms three peaks of about equal height: Hill 971 (elevation in feet), Hill Q, and Chunuk Bair, all three of which command an

extensive view of the Narrows. On the outside of the peninsula, the approaches to these heights are indescribably difficult and complicated but on the inner side the slopes are more gradual and there are fewer obstacles to the movement of troops.

We are mostly concerned at this time with the area south of Chunuk Bair. First there are two crests known as Battleship Hill (BB) and Baby 700 (700), both commanded by Chunuk Bair (CB). (Symbols in parentheses are those used on the map). Then come the three long ridges, known as First, Second and Third, or Gun Ridge. It may be remarked here that most of the names of terrain features are derived from their appearance, or from the fact that some officer or man distinguished himself in their defense or capture; others reflect the British sense of humor. For instance, one place was called Johnstone's Jolly because an officer named Johnstone repeatedly remarked that he would give the Turks there a jolly good time if only he had some mortars; it was thus "Johnstone's Jolly Good Time" and finallly "Johnstone's Jolly."

The landing as planned was designed to miss First Ridge and to cross only the other two. As actually made, however, First Ridge was the immediate obstacle encountered. Immediately southwest of Baby 700, it consists at first of a narrow saddle called The Nek (N) and then rises to a long and narrow plateau called Russell's Top (RT), on the western side of which two spurs lead to the shore, the southerly of which was Walker's Ridge (WR). The seaward side of Russell's Top is practically unclimbable and ends in a cliff some 300 feet high called the Sphinx (S). South of Russell's Top, the ridge contracts for 200 yards into a razor edge, impassable for infantry and with a deep chasm on each side. The ridge opens out again into Plugge's Plateau (P), then continues south to fringe the coast of Anzac Cove, and ends in MacLagan's Ridge (M) which forms one side of Shrapnel Gully (SG).

Second Ridge forms the eastern side of Shrapnel and Monash (MG) Gullies. For 1000 yards from its beginning near Baby 700 it forms a narrow crest line with a steep fall toward Monash Gully, less steep slopes to Mule Valley (MV) on the other side. It then broadens out into a plateau about half a mile wide and half a mile long known as 400 Plateau (400) from its elevation. The ridge then continues in a series of spurs to within a mile of Gaba Tepe.

Gun Ridge is the longest and largest of the three. Important features on this ridge are Scrubby Knoll (SK), which is only three and a half miles from the straits, and Anderson's Knoll (AK).

Most of the country is covered with low scrub about three feet high, interspersed with prickly dwarf oak, and, in places, so dense that it is difficult to penetrate, thus constituting a serious obstacle not only to movement but to control. Water is practically non-existent.

The Landing

The covering force, the 3rd Brigade, was to land on a front of 1600 yards, its right about a mile north of Gaba Tepe, its left just south of First Ridge. It was to seize Chunuk Bair and Gun Ridge, while a small party was to proceed south to clear the Turkish guns at Gaba Tepe. The 2nd Brigade, landing immediately after, was to extend the line to Hill 971, when the advance was to be resumed. The maps available were inaccurate, the topographical features had no names by which to distinguish them, the extremely difficult character of the terrain was not fully realized, and when, in addition, the force landed at the wrong place, it is readily apparent that it faced grave disadvantages at the start.

On the night of the 24th, the various ships met at their moonlit rendezvous five miles off the coast. Here the troops transferred to boats and the tows were formed. As the moon set at 0300, the force started in for the beach. Two and a half miles from shore, the battleships stopped and the tows moved on, the 9th battalion on the right, the 10th in the center, and the 11th on the left.

The course was steered by compass, the guide boat on the right, but the effect of the current was underestimated and the tows were carried to the north. As the shore became faintly visible, the naval officer in charge of the guide boat saw Ari Burnu to port. He jumped to the conclusion that it was Gaba Tepe and that he had gone too far south. He at once headed to the north, followed by some of the tows. On the left, the naval officer in charge of the flotilla realized the mistake and crossed to the right. Some of the tows hit the shore just north of Ari Burnu, others around the headland. Thus the landing was made on a smaller front than intended and at the wrong place; and the units were badly confused and intermingled.

The first troops to land were met by scattered fire from outpost detachments and on terrain much different than that which had been described to them. However, their orders had impressed on them the necessity of pushing inland at all costs and a mixed party scrambled to the top of Plugge's Plateau. Here most of the men were halted in an attempt to reorganize but a few individuals dashed on ahead. Two companies were led on toward 400 Plateau and another 100 men, assembled from various units, advanced on the same point. Others reached Plugge's Plateau from Ari Burnu by climbing over the razor edge. Still others were on the northern beach, pinned down by machine gun fire from the north. Stragglers, separated from their commands and without leaders, began assembling in Anzac Cove and the gullies nearby.

Meanwhile, the remainder of the covering force was landing from destroyers on a somewhat broader front. On the right, troops advanced to 400 Plateau, clearing away small groups of Turks. It was evident that the mistake in landing had made the capture of Gaba Tepe impossible, for the Turks in that vicinity were aroused and could be heard firing. Nevertheless, the two companies detailed for this task started south and encountered a party of Turks entrenched at the head of Bolton's Ridge (BR). The trench was captured and Bolton's Ridge occupied to protect the right flank, but the troops were too disorganized for further advance.

On the left, the difficulties of terrain and opposition were greater. A party of Turks near Fisherman's Hut (FH) caused many casualties in the boats landing to the north and prevented movement in that direction. Some troops managed to climb the cliffs to Russell's Top and drove off a small enemy detachment which fled across The Nek to Baby 700. Thus between 0530 and 0600, First Ridge had been cleared but to the commander of the covering force, the situation was extremely vague. From Plugge's Plateau, he could see before him the scrub-covered ravines and spurs into which the advancing troops had disappeared. His

view to the north was restricted by Russell's Top. On the other hand, the covering force had gotten ashore, the Turks had been surprised and were obviously few in numbers. The importance of gaining Baby 700 was apparent, for this hill commanded the gully leading to Second Ridge and a Turkish advance down First Ridge from that point would take the British line in reverse.

Only two companies of Turks were in this area at the time of the landing, with two battalions of the 27th Regiment forming the zone reserve, near Maidos and the 19th Division, the General reserve, near Boghali. The colonel of the 27th heard of the landing at about 0530. He believed that this was only a minor attack but he at once ordered his two battalions to drive the invaders into the sea. These troops could not get started until 0730.

The commander of the 19th Division was Mustapha Kemal, present ruler of Turkey. In the early hours of the morning, he was out watching one of his regiments at drill when a messenger ran up to him crying that the English had come. Mustapha Kemal then began to commit a number of military heresies. He did not get permission from his superior, a Turkish officer to whom Von Sanders had entrusted the defense of the whole southern end of the peninsula, to employ the general reserve; he didn't issue an operation order, or move to an assembly area, or issue extra ammunition, or make any administrative or supply arrangements. He asked, "Have we ball cartridges?" The answer was "Yes," and he issued his order: Forward. He himself led off with an advanced party of one company, leaving the rest of the regiment to follow as rapidly as possible.

Reinforcements were thus on the way to the small Turkish outpost detachments but neither of these parties of troops could arrive much before 1000, so that for at least five hours after the landing, the 4,000 Australians in the covering force and the 4,000 in the 2nd Brigade right behind them had hardly any opposition to face. But the confusion of units, the unknown and difficult terrain, and too much of the spirit of "Dig" instead of "Forward" were to ruin them.

As the 2nd Australian Brigade was landing, it was decided that it should move to the area south of 400 Plateau, leaving the area to the north to the original covering force. The landing was made with difficulty for guns from Gaba Tepe were shelling the anchorage and the shores of the cove. A battleship stood in close to the shore and raked Gaba Tepe with her broadsides but was unable to silence the fire. One company of the 2nd Brigade was accidentally debarked north of Ari Burnu. As they approached the shore, they were fired on from Fisherman's Hut and over a hundred of the 140 men were killed or wounded. The survivors, however, drove off the Turks at this point.

In Anzac Cove, most of the troops were ashore soon after 0900 and were led to a rendezvous in Shrapnel Gully. Here, however, unauthorized calls came for reinforcements and bodies of men shoved off on their own account to answer. Sometimes they got to the part of the line for which they were headed, sometimes they got lost, but soon the units of the main body were as badly intermingled as those of the covering force and it was impossible to keep a divisional reserve assembled.

By 0700, Second Ridge had been cleared of the enemy and small parties had advanced to Gun Ridge, the covering force objective. One group even got as far as Scrubby Knoll, where the waters of the Narrows, the goal of the whole campaign, lay before them. This was the nearest to the objective that was reached by any Allied soldier during the campaign. But the commander of the covering force did not know this, he was afraid to extend his front by advancing, and he ordered a line dug in on Second Ridge. On the other flank, Baby 700 and part of Battleship Hill were occupied, but there were no reserves and the inevitable counter-attack was coming up.

About 0930, the 27th Regiment came into action across Gun Ridge. It drove back the scattered detachments occupying it and advanced against Second Ridge. Here, to be brief, the day was spent in severe fighting with heavy losses, in local disaster and the height of confusion, but the British managed to hold on to their position.

On the left, the Turks led by Mustapha Kemal advanced over Battleship Hill and captured Baby 700. A renewed attack drove them off and this position was taken and lost several times during the day. Finally, at 1600, a Turkish counter-attack was organized in force, and Baby 700 was recaptured and held. This left gaps in the British line at this point and a dangerous weakness at The Nek.

Although by evening, the 2nd Division of the Anzac Corps had begun to land, the situation faced by the corps commander was far from reassuring. The troops inland were hopelessly mixed; some of the positions were held by remnants or detachments of as many as seven battalions under the command of an officer from still another unit. The troops were broken down with exhaustion and thirst, the artillery had been delayed in landing and could hardly be employed in such country, support from ships' guns was almost impossible; in a word, the whole plan, both in outline and in its details, had gone wrong.

At the time General Birdwood landed that evening, he had the impression that everything was going well; but the reports of his division commanders and the number of stragglers convinced him that he would be unable to withstand another counter-attack in the morning. He therefore sent a message recommending evacuation. He didn't bother to address the message to anyone but merely sent it to the admiral in command of the local supporting ships. Fortunately, Hamilton arrived soon afterward on the Queen Elizabeth and was informed of the situation. He asked the admiral's opinion and was told that re-embarkation would take two days and that the admiral thought the troops could stick it out. Under this influence, Hamilton had one of his few resolute moments and wrote back, "You have got through the difficult business. Now you have only to dig, dig, dig until you are safe."

So the troops dug, and the Turks, much disorganized by their efforts on the 25th and still inferior in strength, were not able to counter-attack on the 26th. On the next day, Mustapha Kemal again made some offensive efforts but the confusing nature of the country and the poor quality of some of the Arab units made this effort ineffectual. The one serious threat to the British, an advance across The Nek, was defeated with the help of ships' guns and from then on the Turks made no attempt to advance by daylight over open ground exposed to fire from the sea. From this time on, the situation stabilized into trench warfare routine with minor attacks for points of local importance, but the general lines held by the British up Walker's Ridge

across Russell's Top, then down Second Ridge across 400 Plateau and back to the sea—remained practically without change for the next three months.

The total length of the territory which they had captured was less than one and a half miles and its greatest depth inland from the shore was only 1000 yards. The shore was exposed to the weather and the anchorage was under direct hostile observation from the coast on either flank. The routes of approach to many parts of the position were commanded by the Turks on Baby 700 and other places, and water, food, ammunition and other supplies had to be carried by hand up the steep gullies exposed in many places to enemy fire.

So far, the defenders had won. The British had been able to establish themselves on shore at Helles and Anzac but they were nowhere near their objective and the way to Constantinople remained barred. The story of their second great effort to win the campaign, and comments on the operation as a whole, will form the subject of Part Two.

PART II.

May to July, 1915

■ At the conclusion of Part I (Marine Corps Gazette, February, 1936), we left the British forces at Helles and Anzac with their foothold on the beach established but still far from their objective, with the resistance hardening against them, and the stagnation of trench warfare setting in. It is not proposed to relate the operations that took place during the first three months of the land campaign for although these events took the form of a severe struggle with attack on the one side, counter-attack on the other, and heavy losses without progress on both, they are not instructive from the tactical point of view in which we are interested.

A high degree of organization was evolved at the beaches in the accumulation of stores and in the construction of breakwaters, piers, jetties, and shelters for personnel, for there was hardly a spot occupied by the British in either sector which was not exposed to shell fire from the Turks on their front or from batteries on the Asiatic shore. Only the extreme shortage of ammunition available to the Turks kept them from continual bombardment, but the difficulties of handling large quantities of ammunition and stores under even intermittent shell-fire may well be imagined. The fire was particularly trying to the spirit of the French troops who were on the side nearest Asia; probably the lowest ebb of morale was on the day that a single lucky shell destroyed several thousand bottles of wine.

At Anzac, the extreme ruggedness of the terrain and the exposure of large parts of the routes of communication to direct enemy fire made the supply of forward troops a matter of constant difficulty. The water problem was acute throughout the operation and its transportation required various methods, such as the employment of Sikh water-carriers and donkeys.

In order to interrupt Turkish water communications, occasional submarine raids were made into the Sea of Marmora. These raids interfered to some extent with the transfer of troops and supplies to the peninsula but the effect could not be continuously maintained.

On the other side, several German submarines managed to pass through the Straits of Gibraltar and appeared on the scene. The threat of their presence was considered sufficient reason to recall the flagship, the modern *Queen Elizabeth,* to protect home waters on May 12. Near the end of May, two battleships were torpedoed and sunk, one near Gaba Tepe, the other off W Beach. Consequently, the system of transporting troops from the base to the landing places on large warships and commercial vessels had to be abandoned and trawlers and tugs were utilized for this purpose. Moreover, the larger ships could not be risked to give continuous naval gunfire support but had to remain, except for special operations, in the protected anchorage. Though the naval gunfire was not very effective, the moral loss was considerable.

The inadequacy of Hamilton's force has already been noted. This weakness continued, for troops required three weeks to get to him from England and the home authorities had neither the foresight nor the ability to send the numbers which would be needed at the time of arrival but only sent what was needed at the time of dispatch. By the time a draft of troops had arrived, more vacancies had occurred to be filled. A reserve of troop replacements should have been established nearby but this was never done.

Much the same thing occurred with respect to reinforcements. They were sent on the basis of the present situation—as seen through Hamilton's glasses, one lens rose-colored with optimism, the other more darkly tinged with apprehension of Kitchener—never on the probable needs of the future. Since the Turks were increasing their numbers at the same time, the British were always below the strength necessary for the delivery of an overwhelming blow.

Supply, especially of ammunition, followed the same course. A striking comparison is made in the Official History. On May 6, 7, and 8, Hamilton attacked at Helles with 20,000 troops on a three-mile front. He supported the attack with all the artillery ammunition that could be spared, 18,500 rounds from all sources, including naval; about 6,000 rounds a day. He advanced 600 yards at a cost of over 6,500 casualties (33 per cent). The Turkish trench system was incomplete and unprotected by wire; the main obstacle to progress was unlocated machine guns concealed in natural cover.

On the next day, at Aubers Ridge in France, 30,000 British infantry with 25,000 more in reserve attacked the heavily-wired and fortified German line on a front of two miles. They were supported by 80,000 rounds of artillery ammunition fired in a single day. They had 11,000 casualties, did not gain a yard of ground, nor cause the movement of a single German reserve company.

These 80,000 rounds and part of the troops wasted in France on this single day might well have carried Hamilton on to victory. But so strong was the influence of the Western Front advocates, that huge amounts of men and material were expended there in a hopeless effort to gain a minor objective while Hamilton was refused the small amounts which might have enabled him successfully to conclude his campaign with the most far-reaching and significant results on the course of the War.

Plans for a New Attack (See Map 6)

Nevertheless, by the beginning of August, the Allied forces at Gallipoli had been gradually increased to a total of thirteen divisions, an Indian brigade, and four Anzac mounted brigades. Although most of these divisions were below strength and lacked some of their divisional units, Hamilton was able to muster, at the peak, as many as 110,000 rifles. Of these, six divisions,

including the two French, were at Helles; the two divisions of the Anzac corps were at Anzac. This left five divisions with which a new attack might be made.

Four alternatives were considered:

(1) To attempt to push forward from Helles, combining this attack with a landing near Gaba Tepe. This plan was rejected because there was not room for the employment of many additional troops at Helles, the necessary artillery to blast a way through was not available, and the idea that flanking fire from the Fleet on the Turkish lines would materially assist the advance had been exploded. Gaba Tepe was known to be strongly defended and a successful landing there was not considered feasible.

(2) A landing on the Asiatic shore. The French favored this plan but it, too, was rejected. In addition to the reasons which had appeared against it in April, Hamilton felt that he did not have enough troops for an effective operation across the Straits without reducing the troops on the peninsula below the strength he considered a necessary minimum.

(3) To attack at Bulair. Here the landing places were unsatisfactory; the distance from the base, coupled with the submarine hazard, exposed the supporting ships and transports to too much danger; and there was no assurance that a successful operation would accomplish the objective: to assist the Fleet through the Straits.

(4) To attack with the Anzac Corps, reinforced, combined with a landing in Suvla Bay. The objective would be to gain the high ground which commanded the waist of the peninsula and the Narrows from the north. Suvla Bay was now known to be suitable for landing and was also known to be lightly defended. The seizure of the heights overlooking Suvla Bay would give the Expeditionary Force what it had not yet gained: a landing place covered from fire. The tactical situation was such that a surprise could be obtained, and a strong combined attack could be made by forces already ashore (at Anzac) and those which could be landed at Suvla against terrain features of major importance. Other aspects of the scheme were favorable and it was decided to execute this plan.

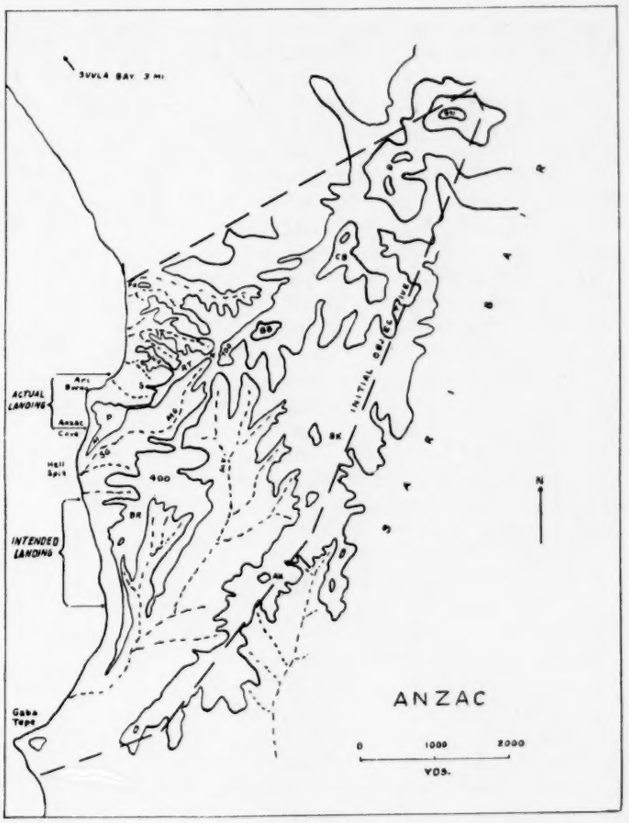
The Suvla Bay area is dominated on three sides by high ridges. To the south, Sari Bair commanded Suvla Bay, the positions held at Anzac, and the eastern side of the peninsula. If Sari Bair and the final objective, the ridge east of Sari Bair, could be gained, the Turkish forces would be cut in two, those at Helles and Kilid Bahr isolated, and the Narrows directly threatened.

In view of the disappointing effects of ships' gunfire, the losses which had been incurred in the daylight landing at Helles in April, and in order to gain surprise, it was decided that both the Anzac and Suvla operations should be initiated at night. Moreover, as a preliminary operation, it was necessary secretly to reinforce the Anzac Corps and for this a succession of dark nights was required. The phases of the moon thus determined the date of the attack which was set for the first week in August.

The six divisions at Helles were to make as strong an attack as possible to hold the Turks in that area and to draw others to the south.

The Anzac Corps was to be reinforced by the equivalent of two divisions, break through to the north, and gain Hill 971 and the other heights of Sari Bair as the first objective.

Two divisions were to land at Suvla, seize the ridges encircling the bay as the first objective and combine



Map 5

with the Anzac Corps in the further advance.

Two divisions were to remain in general reserve.

We cannot take this last statement as indicating that Hamilton had a general reserve which could be used for immediate influence on the course of the action. The two divisions referred to were left at the base, they were just arriving from England, and they were neither in condition nor properly organized for use in the early stages of the attack. One of the divisions, in fact, had merely been sent out with the intention of using it as replacements for the whole force. We can therefore eliminate this reserve from consideration for the first few days and remember that Hamilton was practically in the same situation as in April; that is, with the authority and the responsibility but without physical means immediately to exploit success or redeem failure.

Turkish Disposition

On the Turkish side, Von Sanders was not left in ignorance of the impending attack. As early as June, Churchill made a speech in which he informed not only his immediate hearers but a much larger audience extending as far as Constantinople that the effort to take Gallipoli would not be given up and that the necessary forces to carry the campaign to a successful conclusion would be provided. From other sources, Von Sanders learned, by the middle of July, that 50,000 or 60,000 additional troops were assembled at Mudros and would soon be upon him.

The problem which confronted him was similar to that which he had to solve in April. Although portions of the Allied force were now committed in certain areas and toward a definite objective, there was no indication where

(*Continued on page* 34)

MARINE CORPS RESERVE (F)

LILLIAN C. O'MALLEY, *Ex-Corporal M.C.R.(F)*

■ Female gyrenes! Leathernecks in skirts! In 1917 who would have thought we would be reading about such a picture? But this sight was not an unfamiliar one in the fall of 1918 and 1919 in the capital of the United States and several other cities of the country.

When the United States entered the World War the total enlisted strength of the Marine Corps was 13,215. War plans called for extensive recruiting and the strength rose to a maximum of 70,849 in November, 1918. When the first Marines sailed for the front in 1917 many transfers were necessitated among the commissioned and enlisted personnel, training camps were held for aspirants for appointment as second lieutenant, quartermaster supplies and materiel were purchased, work in the Paymaster's Department increased, and all of the attendant correspondence flowed through the Marine Corps Headquarters in such volume that from a commissioned and enlisted force to conduct affairs totaling one hundred and forty-nine (149) in March, 1917, the strength of Marine Corps Headquarters rose to five hundred and sixty-three (563) on July 31, 1918.

Some of the enlisted men on clerical duty were well trained noncommissioned officers of the highest caliber, transferred in certain cases from units about to leave for the front to duty at Marine Corps Headquarters because of their particular knowledge of muster rolls, filing, paymaster or quartermaster routine, and in other cases were fresh from high school or offices. It was not unusual in those busy days for a man to enlist in the Marines "to win the war" and before the ink was dry on his enlistment paper to find himself sitting before a typewriter or switchboard, operating an elevator, acting as a messenger or chauffeur, instead of being transferred to a recruit depot for the customary military training for active duty at the front. Save for these few cases in the rushing days of 1917-1918 when men enlisted and immediately received special duty assignments which they were reported to the recruiting offices to be qualified to perform, all men enlisting in the Marines went through the recruit training at Parris Island, S. C., or San Diego, Calif.

But when these "old-timers" or "fledglings," as the case might be, realized that there was a war going on and that they were so far removed from action, the requests for transfer to the front started to pile up! Also, the clerical work increased day by day and required trained assistants in business principles beyond the supply available in the Marine Corps. The demand for capable clerical personnel in each military unit in the field was also becoming a paramount issue.

Men were willing to enlist for active duty in the line but few were satisfied to accept clerical positions in a civilian status in Washington, D. C., and those who might have accepted positions in a civil service status would have been eligible for draft in the Army or Navy if within the age limits.

The question of appointing women to clerical positions in military headquarters, recruiting offices, and depots of supplies arose. Each division made a survey of the personnel situation to estimate the amount of work being done by men that could be accomplished as well by women. On the second of August, 1918, the Major General Commandant wrote a letter to the Secretary of the Navy setting forth the entire situation, receiving the following reply:

"NAVY DEPARTMENT
Washington

August 12, 1918.

To: The Major General Commandant.
Subject: Enrollment of women in the Marine Corps Reserve for clerical duty.
Reference: Letter of Major General Commandant, August 2, 1918.

1. Referring to letter of the Major General Commandant as per above reference and in particular to the statement contained in the second paragraph thereof, that it is thought that about 40 per cent of the work at the Headquarters, U. S. Marine Corps, can be performed as well by women as men: authority is granted to enroll women in the Marine Corps Reserve for clerical duty at Headquarters, U. S. Marine Corps, Washington, D. C., and at other Marine Corps offices in the United States where their services may be utilized to replace men who may be qualified for active field service with the understanding that such enrollment shall be gradual.

JOSEPHUS DANIELS,
Secretary of the Navy."

Authority having been granted to enroll women in the Marine Corps Reserve for clerical duty at Marine Corps Headquarters and other Marine Corps offices in the United States to replace men qualified for active field service, the following information was sent to the officers in charge of recruiting throughout the United States:

"1. Women to be enrolled as privates in the Marine Corps Reserve, Class 4, for a period of four (4) years, and the requirements to be the same as for men, except as modified by the "Circular Relating to the Physical Examination of Women" prepared by the Bureau of Medicine and Surgery, Navy Department.

FEMALE RESERVISTS, U.S.M.C., HEADQUARTERS MARINE CORPS, WASHINGTON, D. C., DECEMBER, 1918

2. To be between the ages of 18 and 40, but an applicant slightly under 18 years of age, who is in every respect very desirable, to be enrolled with the consent of her parents, after authority from the Major General Commandant.

3. Women to be enrolled to be competent stenographers, expert bookkeepers, accountants, or typists.

4. No enrollments to be made without specific authority of the Major General Commandant.

5. All applicants to be informed that they will be subject to the rules and regulations that apply to enlisted men and that if their services or behavior are unsatisfactory they will be summarily disenrolled.

6. Pay and allowances while detailed as clerks to be the same as privates in the Marine Corps Reserve ($110.00), in addition to which articles of uniform clothing are issued gratuitously.

7. Women enrolled to be entitled to the same privileges as enlisted men in the regular service regarding family allotments and insurance.

8. Opportunity for promotion to noncommissioned rank, with corresponding increase in pay, open to those who prove capable and industrious."

The first women enlisted in the month of August, 1918, and by the eighteenth of September the Major General Commandant was in a position to direct the transfer to active duty in the line of all men at Marine Corps Headquarters, in staff offices, and in recruiting offices, employed on clerical or other routine duty and who were classified under selective service regulations, provided, of course, their services could be spared without detriment to the government service and the women clerks available were competent to fill their places.

In his report of the personnel situation following receipt of the above instructions, the Depot Quartermaster at San Francisco stated to the Major General Commandant on September 26, 1918:

> "Practically all of the men who are available for transfer from this Depot have requested that they be sent directly to Quantico. They desire overseas duty and fear that transfer to any other post may mean duty elsewhere than in France. As they are all men who have rendered good service here, I request that I be given authority to transfer them, when relieved from duty here, to Quantico."

Opha M. Johnson was the first woman enlisted on August 13, 1918, and from that date until April 23, 1919, a total of 305 women were enrolled in Class 4 of the Marine Corps Reserve. They were immediately transferred at government expense from place of enlistment to the city where their services were required. They received the same pay as enlisted men of similar rank, plus the allowances for subsistence and quarters. The pay amounted to approximately $110.00 a month. In addition, articles of uniform were issued to each woman, consisting of a specially designed skirt and coat, overcoat, chambray shirt, regulation tie, overseas cap, and campaign hat. The overseas cap, both in winterfield and khaki, was the preferred head gear and the one usually worn by all women in uniform. The uniforms were tailored to measure and were made out of material similar to that used for men in the regular service.

The deduction of twenty cents monthly from the pay of all personnel in the Navy and Marine Corps payable to the Navy Hospital Fund applied also to the female reservists. The medical officers of the U. S. Navy were in charge of the physical fitness of the women enlisted, conducting the physical examination at the time of enlistment, and also taking care of any of the women who became sick following enlistment. When prescribed by the Naval Medical Officers, medicine and hospital supplies were furnished without charge.

In Washington and various other cities on the east coast there was a severe epidemic of influenza during the months of September and October, 1918. The Naval Hospital, Washington, became overcrowded, and although several female reservists did receive treatment there during the early days of their service in the Marine Corps, arrangements for future cases were made by the Bureau of Medicine and Surgery at civilian hospitals. Thereafter those requiring hospitalization were admitted to civilian institutions.

They were entitled by law to all benefits of hospitalization as a result of injuries or sickness occurring in line of duty and through the Veterans Administration, even since separation from the service, some have received medical care and treatment in government hospitals.

Leave of absence was granted according to the length of time in the service on the basis of two and a half days a month, and there were several cases of sick leave which the medical officers of the Navy approved. As travel for one cent a mile for all the personnel of the armed forces was in effect during 1918 and 1919, some of the "marinettes" made lengthy journeys while on furlough to visit their homes or friends in far away states.

While many unusual uniforms turned up during the war for members of different organizations, that designed by the Quartermaster for the Marine Corps Reservist (Female) and individually tailored of winterfield material (and khaki for summer wear), worn with overseas cap, cordovan oxfords and gloves, was a particularly attractive one and suitable for the office work and duty in recruiting offices. A Marine is taught from the beginning of his service to love his uniform and to respect it, and this same spirit was instilled in every girl who wore the Marine Corps colors. As promotions to the grade of private first class, corporal, and sergeant were made, the chevrons of the rank were proudly worn by the newly appointed noncommissioned officers and jealously eyed by the aspirants. The maximum grade attained was that of sergeant.

Assignments to Duty

The Marine Corps Headquarters, Washington, D. C., received the greatest number of women. In addition to the daily office routine at Headquarters, the uniformed female reservists were drilled and trained in the simpler drill movements by noncommissioned officers of the Marine Corps before nine o'clock on the ellipse in Potomac Park. They participated as a unit in various parades and similar ceremonies.

While no advanced drills or exhibitions were ever given to demonstrate the proficiency attained by the various companies of female reservists, there were opportunities afforded to determine the general appearance of the entire group when it participated in parades and ceremonies in Washington. A month prior to disenrollment in 1919, the entire unit was included in the guard of honor, facing the Presidential Reviewing Stand at the White House, for a parade of troops just returned from the front. The showing was creditable to the girls and to the Marine Corps.

(*Continued on page* 45)

SELECTION RESULTS

DEPARTMENT OF THE NAVY

WASHINGTON

4 May, 1936.

To: Colonel James J. Meade, U.S.M.C.,
President, Marine Corps Selection Board,
Navy Department, Washington, D. C.

Subject: Marine Corps Selection Board.

1. A Selection Board, consisting of yourself as president, and the following-named officers as additional members, viz:

Colonel William P. Upshur, U.S.M.C.,
Colonel Charles R. Sanderson, A.Q.M., U.S.M.C.,
Colonel Russell B. Putnam, A.P.M., U.S.M.C.,
Colonel Frederick A. Barker, U.S.M.C.,
Colonel Emile P. Moses, U.S.M.C.,
Colonel Clayton B. Vogel, U.S.M.C.,
Colonel Holland M. Smith, U.S.M.C., and
Colonel Ross E. Rowell, U.S.M.C.,
and of Lieutenant Colonel Alfred H. Noble, U.S.M.C., as recorder. * * *

FINDINGS

The following officers were selected by the Board. The Navy Department agrees, and the White House gave an approving signature on May 19, 1936:

LIEUTENANT-COLONELS FOR PROMOTION TO COLONEL

Lt-Col. Joseph Aloysius Rossell
Lt-Col. Jeter Rice Horton, A.Q.M.
Lt-Col. Sydney Smith Lee
Lt-Col. Clarke Henry Wells

MAJORS FOR PROMOTION TO LIEUTENANT-COLONEL

Major Adolph Bradlee Miller
Major Ralph Eaton Davis
Major John Lockhart Doxey
Major Clyde Hill Metcalf
Major George Andrew Stowell
Major George Carroll Hamner
Major James Frederick Moriarty
Major Walter Thomas Hyssop Galliford
Major William Burris Croka

DESIGNATED TO REMAIN ON ACTIVE LIST FOR ONE YEAR

Lt-Col. William Thomas Hoadley
Lt-Col. Franklin Bond Garrett
Lt-Col. Tom Dustin Barber
Lt-Col. Calhoun Ancrum
Lt-Col. Maurice Edwin Shearer
Lt-Col. William Dulty Smith
Lt-Col. Randolph Coyle
Major Henry Mithoff Butler
Major Chester Leverett Gawne
Major Clarence Edmund Nutting
Major Woolman Gibson Emory
Major Allen Eichelberger Simon
Major Sidney Norton Raynor
Major Frederick Roland Hoyt
Major Roy Delmar Lowell
Major David Sheldon Barry, Jr.
Major John Alexander Gray
Major Paul Choteau Marmion
Major Arthur Hubesty Turner

ED.

LEGISLATION

In prior issues of the GAZETTE mention is made of proposed legislation pertaining to or of interest to the Marine Corps introduced during the present (Seventy-fourth) Congress, and of that enacted up to February 15, 1936. The record is now brought to May 30, 1936. Any bills not passed prior to final adjournment, die.

PERSONNEL BILL

The bill of most interest to Marine Corps officers is H. R. 4016, which became a law with the President's approval on May 1. This bill amends section 10 and repeals section 16 of the Marine Corps personnel act of May 29, 1934.

The primary purpose of the changes in section 10 was to remedy a situation brought about by what the House Committee on Naval Affairs termed a too drastic application of the provisions of the personnel act.

It is provided that until January 1, 1938, officers in the upper three-sevenths of the grades of first lieutenant, captain, major, lieutenant colonel, and colonel, will be eligible for consideration by selection boards without regard to length of service in grade; but that on and after that date all officers subject to selection will be required to serve four years in grade (three years for first lieutenants) before becoming eligible for consideration by selection boards, as is now provided by law for corresponding grades in the Navy.

Also, that no officer will become ineligible for consideration for selection or for promotion by reason of length of commissioned service or by age without having been at least once considered by a selection board. This makes eligible for promotion captains in the Marine Corps who have been placed on a promotion list, approved by the President, even though they become forty-five years of age prior to being promoted. Otherwise, through the operation of the act of July 22, 1935, captains would have become ineligible for promotion on June 30 of the fiscal year in which they attain the age of forty-five years even though they had been selected for promotion prior to the passage of the act of July 22, 1935.

Under another amendment to section 10, this one initiated by members of the House Naval Committee, officers of the grade of second lieutenant and above, except those appointed or serving as the Major General Commandant, as Assistant to the Major General Commandant, as the head of a staff department, of those whose names appear on an eligible list for appointment as head of a staff department, shall not serve on duty in the Marine Corps Headquarters, Washington, more than four out of any eight consecutive years unless the President shall determine that the public interests so require.

Section 16, which is now repealed, provided that lieutenant colonels and majors should not be retired because of not being on a promotion list, and should be eligible for consideration for promotion by selection boards without regard to completion of twenty-eight and twenty-one years' commissioned service, respectively. It also provided that officers promoted should not receive the pay and allowances of their new rank until attaining designated numbers in their grade, designed to insure that the same number of officers would draw the pay and allowances of each grade subsequent to May 29, 1934, as had drawn such pay and allowances prior to that date. Officers who have already been promoted and those who are promoted in the future will now receive the pay and allowances of their advanced rank.

The act of May 1 also provides that officers of the Marine Corps in the grades of lieutenant colonel and major, who prior to June 30, 1935, completed the designated periods of service for their respective grades, shall retain their eligibility for consideration for selection until June 30, 1936, and that such officers who on that date are not on a promotion or retention list shall be transferred to the retired list.

Also, that a duly constituted selection board appointed as provided by law shall be convened immediately after the approval of the Act which board, in recommending for selection for promotion the number of officers of the grades of lieutenant colonel and major directed by the Secretary of the Navy in accordance with law, shall recommend, from the officers now on the active list on those grades, four officers of the grade of lieutenant colonel and nine officers of the grade of major, who held commissions in those grades, respectively, prior to the passage of the act of May 29, 1934.

Decorations

Another bill of general interest to the readers of the GAZETTE is S. 1975, to authorize certain officers of the Navy, officers and enlisted men of the Marine Corps, and officers and enlisted men of the Army, to accept such medals, orders, diplomas, decorations and photographs as have been tendered them by foreign governments in appreciation of services rendered. The Marine Corps personnel included in the bill, in addition to those named in the GAZETTE for months of February and November, 1934, are:

Maj. Gen. Louis McCarty Little
Lt. Col. Calhoun Ancrum
Lt. Col. Henry L. Larsen
Lt. Col. Arnold W. Jacobsen
Maj. Alphonse De Carre
Maj. James T. Moore
Capt. John T. Walker
Capt. William P. T. Hill
Capt. William C. Hall
First Lieut. Joe N. Smith
Second Lieut. F. H. Schwable
Second Lieut. John M. Davis
Ch. Q.M. Clerk A. O. Woodrow
Marine Gunner R. S. McCook
Col. Robert L. Denig
Col. William C. Harlee, Ret.
Col. Julius S. Turrill, Ret.
Lt. Col. Harry L. Smith
Lt. Col. Wm. M. Small, Ret.
Maj. Andrew E. Creesy
Maj. Donald J. Kendall
Maj. Chester L. Fordney, Res.
Capt. Louis Cukela

Although included in the lists furnished by Marine Corps Headquarters and the Navy Department, the following names were omitted from the bill, evidently through inadvertence. These names will have again to be submitted to Congress, but action during the present session cannot be expected:

Capt. Robert J. Archibald, deceased
Capt. Edward L. Burwell, deceased
Col. Frank E. Evans
Lieut. Col. Pedro A. del Valle
First Lieut. Adolph Stahlberger, deceased

Naval Appropriation Bill

The Naval Appropriation Bill, providing for the support of the Navy and Marine Corps during the fiscal year 1937, passed the House of Representatives May 1 and passed the Senate May 8. As it passed the House the bill carried appropriations for the Marine Corps $1,841,083 in excess of those for the current year. The Senate added $251,673, making a total increase of $2,092,756, and bringing the total Marine Corps appropriations for the fiscal year 1937 to $25,860,866.

The bill provides funds for increasing the enlisted strength of the Corps from 16,000 men on July 1, 1936, to 17,000 men on June 30, 1937, to be so recruited that the average for the year will be 16,500. This increase is mainly to augment the Fleet Marine Force and to supply Marine Detachments for new ships.

Apart from normal increases on account of personnel incident to longevity and changes in grades and ratings, partly due to attrition, and to a larger amount ($158,527) because of a greater ratio cost, the principal increases made by the House consist of $429,904 for increasing the enlisted strength; additional money to maintain 113 officers on the active list as extra numbers in consequence of the provisions of section 3 of the Act of July 22, 1935; $282,545 for expanding Reserve activities, and about $260,000 for miscellaneous items under General Expenses, including $150,000 for motorized equipment for use of the Fleet Marine Force in field operations.

The Reserve addition applies to aviation activities and provides an amount adequate to pay for drills and training of the number eligible for and who are expected to take such training, and for the employment of eight additional Reserve officers on continuous active duty at Pensacola as instructors because of the large number of regular Marine Corps personnel and aviation cadets who will be given training during the fiscal year 1937.

The Senate increases included additional amounts for making aerial flights; for pay and allowances of the Reserve, and for transportation of the added enlisted force.

The bill includes authorization for the purchase of passenger automobiles as follows: One at $1,800; two at $900 each; nine at $700 each, and six station wagons at $700 each; also for the purchase of five motorcycles at $300 each.

The Reserve increases will permit an increase in the number in the platoon leaders' class from 250 to 450 and the establishment of three new battalions, increasing these Fleet organizations from thirteen to sixteen. The increased appropriations will also permit the training of 125 Volunteer Marine Corps Reserve officers. Due to lack of appropriations no training class has been held for Volunteer officers since the summer of 1929.

New Bills

The following new bills have been introduced:

S. 4028. *Promotion for Lt. Col. Hoadley.*—Introduced by Senator Byrd February 15, 1936, "For the relief of certain officers of the Navy and Marine Corps.

This bill provides for the appointment to the next higher grade or rank of such officers of the line of the Navy and such officers of the Marine Corps as became eligible by seniority for promotion prior to May 29, 1934, and became ineligible for such promotion through the passage of the Acts of May 29, 1934. The bill provides that they shall qualify by the examinations and when promoted shall be carried as extra numbers but only to the grade or rank to which so promoted. The only officer of the Marine Corps who would be affected by the passage of S. 4028 is Lieutenant Colonel William T. Hoadley, who became eligible for promotion by seniority to the grade of colonel on May 1, 1934, to rank from March 20, 1934, but was not promoted, having, through no fault of his, not been examined for promotion.

The bill was referred to the Committee on Naval Affairs and has not yet been reported out.

H. R. 12479. *Medal of Honor for Colonel Meade.*—Introduced by Mr. Higgins on April 27, 1936. The bill provides that the President is authorized to present, in the name of Congress, a Medal of Honor to James J. Meade of the Marine Corps "for conspicuous bravery on the night of October 31-November 1, 1919, as an officer of the Gendarmerie d'Haiti." Referred to the Committee on Naval Affairs.

H. R. 11962. *Rank of brigadier general for Director of Aviation.*—Introduced by Mr. Maas March 23, 1936.

This bill provides that an officer of the active list of the Marine Corps may be detailed as Director of Aviation, Headquarters Marine Corps, and shall while so serving have the rank, pay and allowances of a brigadier general; that he shall serve for a term of four full years and shall not be eligible for further detail as Director of Aviation, Headquarters Marine Corps; also, that the officers who is serving or shall have served subsequent to the passage of the Act as such Director of Aviation shall upon retirement have the rank and pay of a retired brigadier general. Referred to Naval Committee.

H. R. 12357. *Only citizens in military and naval forces.*—Introduced by Mr. Gasque April 17, 1936, and referred to Committee on Military Affairs.

This bill, if enacted, would prohibit the expenditure, after July 1, 1936, of any money for the pay, allowances, etc., of any member of the military or naval forces of the United States, regular or reserve, or of any member of a training camp, or the Naval Academy or Military Academy, if such individual is not a citizen of the United States at the time of such expenditure.

H. R. 11896. *Armory for the Reserve.*—Introduced by Mr. Young and referred to the Naval Affairs Committee. Makes provision for the construction of a Federal building at the Navy Yard, Washington, D. C., for use as a Naval Reserve and Marine Corps Reserve armory, and authorizes an appropriation of $1,250,000 for the purpose.

H. R. 12328. *Land at San Diego for rifle range.*—This bill contemplates the ceding by the Secretary of the Navy of an area of land, approximately 60 acres, from the southeast portion of the Marine Corps Base area and lying adjacent to the Municipal Airport, to the City of San Diego, Calif., and the acceptance by him in exchange therefor of pueblo lands of approximately 544 acres and tidal lands of approximately 5 acres, essential to the efficient functioning of the Marine Corps Base at San Diego. Referred to the Naval Committee.

H. R. 12254. *Advancement of aviators on retired list.*—This bill provides that any naval aviator of the Navy or Marine Corps who qualifies as such prior to April 1, 1917, and who has since been or may be disqualified for active duty as pilot due to defects or injuries, resulting from aviation duty, if now retired or when retired shall be advanced one grade on the retired list; but that no retired pay under the act shall be higher than that received by a colonel on the retired list.

H. R. 7110. *Navy Cross for General Dunlap.*—This bill, originally for a Medal of Honor, authorizes the President to bestow the Navy Cross upon Brigadier General Robert H. Dunlap, deceased. It passed the House July 12, 1935, the Senate on February 20, 1936, and was signed by the President May, 1936.

AN INTRODUCTION TO THE GALLIPOLI CAMPAIGN

(*Continued from page 29*)

the new blow might fall. The British, with the same advantages of initiative and control of the sea, could concentrate their forces at any one point while he again was compelled to be ready at all points and could only concentrate gradually to meet the attack. This condition existed to a greater or less extent throughout the operation and in spite of a total superiority in numbers (which, outside of the map problems, is a very misleading but convenient way to compare strength) it may be said that on the average about one-third of the Turkish force was necessarily disposed at points where no influence could be exerted on the combats.

Von Sanders had at this time, the beginning of August, sixteen divisions, three battalions, and a cavalry brigade to defend the peninsula and the Asiatic shore.

He has stated that he considered the previous failure to land on the Asiatic shore precluded an attack in that direction but in spite of this belief, if indeed he seriously held it at the time, three divisions were stationed on the southern side of the Straits. Preparations were, however, made for their transfer to the peninsula in case of need but they could not be available there for several days at the best.

It was not expected that the new forces would attempt an advance from Helles but it was necessary to hold in check the forces already ashore there, and five divisions were used for this purpose.

To the Turks, Gaba Tepe appeared a very vulnerable spot. The commander of the Turks in the Anzac sector was sure that the attack would take the form of a breakthrough to the south from Anzac and a landing at Gaba Tepe. That the estimate so far as Gaba Tepe was concerned had a sound basis is shown by that fact that it was only the Turkish concern for this point, as manifested in their defensive efforts, that eliminated it from consideration by the British. Two divisions were disposed for the defense of Gaba Tepe and the shore to the south.

Although Von Sanders believed that if an attempt was made to break out of Anzac it would be made to the north, he was far from thinking that this was the most likely place for the new British offensive and the three depleted divisions (20,000 men) already in that sector were not increased. That 25,000 fresh troops could be landed secretly and hidden until the time for the attack was a possibility that never entered his head.

Just how Von Sanders felt about the Suvla Bay area we do not know. Whether he believed it an unlikely place for a landing or believed that it could easily be defended the fact is that only four battalions were detailed for the protection of the area from Azmak Dere to Ejelmer Bay.

Again, his line of communications across the Bulair isthmus appeared vital to him and three divisions defended this area.

A cavalry regiment patrolled the 20 miles of coast from Ejelmer Bay to near Bulair. The remainder of the cavalry brigade was on the north coast of the Gulf of Saros.

Plans and Dispositions Compared

As we look at these dispositions, we must feel that Hamilton's choice for the site of the new offensive can hardly be improved. At Helles, equal forces will hold each other. At Anzac, the British will have a superiority of 2 to 1; at Suvla, of 7 to 1.

The only Turkish reinforcements nearby were the two divisions south of Gaba Tepe. The divisions at Bulair were at least 36 hours away (actually, it took them over 50 hours to get into action at Suvla), and the Asiatic divisions were at least a week away. On paper, the British have every chance of success and, as usual, everything will depend on the manner of execution.

Holding Attack at Helles

The night attack from Anzac and the night landing at Suvla were set for the night of August 6-7. This main effort was to be assisted by a holding attack at Helles to begin on the afternoon of the 6th. We may dispose of this action by noting that the British atacked as planned, ran up against strong resistance, and were counterattacked during the night by the Turks. The next day, the Turks attacked and were held. The battle continued for several days with no gain to either side. None of the Turkish troops were drawn from the north by this attack; on the other hand, no considerable numbers were moved from the Helles front to meet the new attacks.

Anzac—Preparations and Terrain (See Map 7)

For the break out of Anzac, General Birdwood was reinforced by the 13th Division, the 29th Infantry Brigade (from the 10th Division), and an Indian Brigade (29th). Not the least delicate part of the operation was the secret landing and concealment of these 25,000 men and all the stores they would require, including an adequate provision of water. The whole sea area and most of the beach itself was under the direct observation of the Turks on their commanding ground. It was necessary, therefore, to make all movements by night and to conceal extra stores, guns, and troops during the day. For this purpose, storehouses and troop shelters were dug out of the face of the cliffs, a task the magnitude of which may be left to the imagination, although it may be mentioned as an example that Birdwood had 9,000 men, nearly half his force, on fatigue duty on August 1. The staff had the task of preparing detailed tables to determine the number of men, animals, and guns that could be landed in a single night, and, working backward from the hour fixed for the attack, to prepare a schedule of the times of arrival of the various details and in a sequence based on the tactical plan.

Each night the troop carriers unloaded under cover of darkness and the troops were hidden away; by morning, the sea was bare of ships and the beach cleared of all except usual activities. On the last morning, the troop carriers were late and part of the Indian Brigade was still debarking at daybreak. They were fired on, the debarkation had to be suspended and 200 men returned to Imbros, but the significance of this incident was not realized by the enemy. The landing and concealment for three days of so large a body of men under the direct observation of the enemy is truly a remarkable and unique achievement; and General Birdwood had so far assured to himself all the advantages that surprise could confer.

To understand his plans and their execution, it is again necessary to appreciate in some detail the involved and difficult terrain to be surmounted. It was all extremely rough, cut by tortuous ravines and characterized by steep slopes, mostly covered with scrub. Its general characteristics were the same as the adjacent terrain in the original Anzac area of which photographs were published in Part I.

The western side of the Sari Bair ridge is formed by a succession of complicated spurs in which may be distinguished three main spurs which were important in the operation: Rhododendron Spur, Damakjelik Spur, and Abdul Rahman Spur. Rhododendron Spur slopes gently from the summit of Chunuk Bair and then divides into three off-shoots: Cheshire Ridge, leading to Bauchop's Hill and Walden Point; Table Top ("TT" on the map) and Old Number 3 Post; and Destroyer Hill ("DD" on the map). There were Turkish outposts on Destroyer Hill, Old No. 3 Post, Bauchop's Hill, Table Top, and just behind Table Top. The total of the Turkish troops in this whole area was only two battalions. There must also be noted five important ravines; from south to north they are Sazli Beit Dere, Chailak Dere, Aghyl Dere, Kaiajik Dere, and Azma Dere, a tributary of the Azmak Dere which separates Sari Bair from the Suvla Bay area. For convenience, these ravines have been marked on the map and will be referred to in the future as Ravines No. 1, 2, 3, 4, and 5.

The main bed of Ravine No. 1 leads steeply upward south of Destroyer Hill to Chunuk Bair. A branch leads north of Destroyer Hill and then forks. The right fork gives comparatively easy access to Table Top and Rhododendron Spur; the left fork is a blind alley which leads only to the steep western side of Table Top.

The gorge of Ravine No. 2 is deep and narrow and its steep sides are covered with scrub but the rough stream bed is comparatively straight with no confusing tributaries.

Ravine No. 3, running north of Bauchop's Hill, is wide and shallow at the seaward end but becomes more steep and rugged toward the top. It is joined by several tributaries and eventually forks; the southern fork leads back toward Chunuk Bair, the northern fork toward Damakjelik Spur.

Damakjelik Spur is really a cluster of steep and rough parallel spurs which fall abruptly from Hill Q. Its northwestern end is split by Ravine No. 4, forming on the south Damakjelik Bair and, on the north, Hill 60.

Ravine No. 5 forms the western side of Abdul Rahman Spur, the forbidding ridge which leads straight to the summit of Hill 971 (elevation in feet), the most important and commanding topographical feature of the area.

The strength of the Turkish forces and their dispositions were pretty accurately gauged. Small British posts had held the seaward end of Rhododendron Spur for some months and the terrain thus far was fairly well known. However, in order to retain surprise, reconnaissance had not been pushed to the north. Ignorance of the terrain, together with its confusing nature, had contributed so largely to the failure of the first landing that this handicap might well have been considered insurmountable for a night attack.

Plan of Attack

General Godley was placed in command of the forces detailed for the break-through to the north. His force was composed of various units, totaling about 27 battalions (about 20,000 men). Throughout the operation, the various task groups of the force were made up of a number of different units which I do not intend to enumerate, but will instead, for the sake of clearness and simplicity, consider the composition of the groups by the number of battalions or their equivalent which they contained. This will not be strictly accurate but will be sufficiently so for our purpose.

His plan was complicated; perhaps, in view of the terrain, necessarily so, but a source of weakness for an operation by night in a strange country. He divided his force into two columns, the right (south) column and the left (north) column. Each was composed of a covering force and an assault column, with Chunuk Bair, Hill Q, and Hill 971 as the first objectives to be reached by an hour before dawn.

The right covering force was composed of four battalions. Of these, two were to move up Ravine No. 1 and capture Destroyer Hill, Old No. 3 Post, and Table Top. The other two battalions were to cross Ravine No. 2 and drive the Turks from Bauchop's Hill across Ravine No. 3. Rapid and successful action on the part of the covering force was essential in order to insure the speedy advance of the assaulting column and its arrival on Chunuk Bair before daylight.

The right assaulting column of four battalions was to move up Rhododendron Spur, pass through the covering force, and capture Chunuk Bair. It was then to attack Battleship Hill (BB) in the rear in coordination with a dawn attack across the Nek against Baby 700 from positions already held within the original Anzac area.

The left covering force, two battalions, was to cross Ravine No. 3, occupy Damakjelik Bair, cover the left flank of the left assaulting column, and make contact with the right flank of the Suvla Bay forces.

The left assaulting column of eight battalions had a dual objective. It was to move up Ravine No. 3 until it reached the fork at the head of the ravine and was then to take the left hand fork. At the head of the fork, the column was to divide: four battalions were to keep straight ahead to Abdul Rahman Spur, there form up, turn to the right and capture Hill 971; the other four battalions were to bear to the right and take Hill Q. This column was merely to consolidate Hills 971 and Q for further advance.

Gun mules were the only animals which were to accompany the columns so that the men were necessarily heavily loaded with technical equipment. Each man carried 200 rounds of ammunition and one day's rations. One pick and one shovel were carried for each eight men. Rifles were not loaded and the bayonet only was to be used until after daybreak.

The guides who were to be furnished knew only part of the route. The terrain was realized to be so difficult that a rate of advance of one mile an hour was set. Enemy detachments had to be driven off with the darkness multiplying the natural confusions of combat. Separated forces had not only to reach strange objectives in the dark but had also to cooperate with each other and there was very little margin of safety so far as time was concerned. The main hope of success was the very boldness of the scheme which, together with the prior arrangements, assured complete surprise and might enable the attacking columns to gain the crests of the ridge before the Turks could assemble against them.

General Godley kept out six battalions as a reserve. They were to form into two columns. One was to move to Ravine No. 2, the other to Ravine No. 3, after the assaulting columns and in those positions await orders. The remainder of his force was in the trenches ready to make the attack on Baby 700 at dawn.

Holding Attack

Before following the fortunes of Godley's force, there is a contributory action which must be mentioned. In order to occupy the Turks and draw their reserves from the Anzac north flank, an attack was planned for the

late afternoon of the 6th against Lone Pine. The attack was made on a very small front after careful preparation and succeeded in capturing the Turkish trenches immediately opposite, and these were held. The attack was successful in pulling the local reserves down from the north but it may be questioned whether it did not do as much harm as good. As we have noted, the Turkish commander at Anzac was sensitive about his southern flank. No sooner had the attack started than he called for two regiments from south of Gaba Tepe to reinforce him. By the time they arrived, the attack was over and they were not needed at Lone Pine so they were pushed on toward Chunuk Bair in the early morning hours of the 7th. It should be remembered that these two regiments are on their way toward Chunuk Bair while the right assaulting column is making its advance.

The Right Column

Soon after dark on August 6, the right covering force began to move forward from behind the northern outposts for the capture of the lower portions of Rhododendron Spur. The enemy post at Old No. 3 was known to be quite strong and special measures had been taken for its capture. For some weeks past, a destroyer had turned a searchlight onto this 200-foot hill every night and bombarded it from 2100 to 2110, precisely. The operation was repeated ten minutes later from 2120 to 2130. The regularity of this bombardment had led the Turks into the habit of retiring for its duration into tunnels and dugouts. Every night, after the second shoot was over, an old Turk would come out and tie up the broken wire and, in the spirit of live and let live that sometimes prevailed in quiet periods of trench warfare, he was allowed to do so. But the old Turk had made his last rounds. Under the cover of the glare of the searchlight and the noise of the second bombardment, part of the covering force crept forward to the edge of the trenches. The moment the light was switched off, they were among the Turks with bayonet and bomb, and Old No. 3 Post was theirs.

Destroyer Hill had meanwhile been taken by another detachment, and Table Top was assaulted. The slopes of this hill were almost vertical and to climb them took longer than was expected. Nevertheless, Table Top was cleared shortly after midnight.

The other section of the right covering force, attacking Bauchop's Hill, met strong resistance and it was 0100 before the position was taken with a loss of 100 casualties out of 400 men in the detachment. The way was now clear for the advance of the assaulting column. The covering force had taken two and a half hours longer than planned for its task but there was still time for the main body to reach Chunuk Bair at least an hour before dawn.

General Johnston commanded the right assaulting column of four battalions. His orders were to reach Chunuk Bair an hour before dawn, which was shortly after 0400, and his preliminary objective was two small trenches on the western shoulder of Rhododendron Spur east of Table Top. He divided his force into a northern and a southern column. The southern column of one battalion was to advance up Ravine No. 1 and up the fork between Table Top and Destroyer Hill. The northern column of three battalions was to advance up Ravine No. 2, climb up to the saddle between Table Top and Rhododendron Spur, join the other battalion and resume the advance.

The two columns were to start moving at 2245 but at that time there were still sounds of fighting on Bauchop's Hill so Johnston decided to wait. He waited until 2330; the firing still continued but he dared waste no more time so he gave the order to advance. Leading the northern column himself, the advance proceeded without incident until the northern face of Table Top was reached. On arrival at this point, there were indications of Turks still on the Top. The column was halted and two companies sent up to investigate. They found a body of Turks which had been missed by the covering force, but the Turks clapped and cheered, threw down their arms, and eagerly surrendered. But all this had taken time and it was 0230 when the advance was resumed. By this time, however, the moon had risen, progress was quicker, and there was no opposition.

Soon the column reached the saddle but the other battalion was not there. It had taken the wrong fork and was stopped by the precipices of Table Top; the commander turned back but his order was misinterpreted and the troops kept going until they reached the starting point near the beach. From here, they again retraced their steps but the vital hours had been lost. Johnston had three of his four battalions in position, he was only 300 yards from his first objective, and less than a mile from the top of Chunuk Bair. Since he had passed Table Top, he had seen only one Turk but he would not advance. Daylight at 0430 found him still waiting the arrival of his fourth battalion, his chance of an easy capture of Chunuk Bair disappearing with the darkness.

The Left Column

The left covering force started up the coast about 2130. At Ravine No. 3, a Turkish post was rushed with the bayonet. Damakjelik Bair was reached about 2300 and was found to be occupied in some strength but the Turks there readily surrendered and by 0030 the hill had been occupied and the way was clear for the advance of the main column.

The left assaulting column of eight battalions, commanded by General Cox, had the most difficult task of all. Its route was twice as long as that of the other column, it was more intricate and confusing, and only a small portion had been reconnoitered. Over three hours were allowed for the three-mile advance but the difficult country, the poor physical condition of the troops, and the difficulties inherent in a night march made this allowance impossibly small. At Ravine No. 2, the head of the column became mixed with part of the covering force and it was after 2300, half an hour late, before the column started from that point. Progress was so slow that it was four hours before the rear of the column cleared the starting point.

The cause of the delay was that a native guide persuaded the officer leading the column to take a short-cut through Taylor's Gap instead of marching around Walden Point. On entering this gorge, the head of the column was sniped at from both flanks. Instead of pushing through, which would have been justified with the covering force ahead, the column was halted and a company sent to the heights on each side. Much time was lost waiting for these companies to return. When the advance was resumed, the scrub was found to be so thick that pioneers had to cut a path through. Eventually the head of the column got through, but the passage of this 600 yards had taken three hours. It was already 0200 and the whole column was due to be approaching the crests of Sari Bair.

In Ravine No. 3, the head of the column again halted

while security detachments were sent to the front. The officers had come by an unexpected route and they did not know where they were. The only clue they had as to the location of the fork at the head of Ravine No. 3, where they were supposed to bear left, was the distance from Walden Point. This clue was now worthless for, by deviating from the original route, there was nothing to indicate how far they were from Walden Point. In the darkness, the ravine directly across from Taylor's Gap had nothing to distinguish it from the left-hand fork of Ravine No. 3. Moreover, fire was now received from across the ravine, probably from Turks who had been driven off Bauchop's Hill, and gradually, without any particular plan, the leading four battalions (Australians) pushed up on to the eastern end of Damakjelik Spur.

By this time, it was daylight; Abdul Rahman Spur was visible to the right front, Hill 971 to the right. It was immediately apparent how far the column had deviated from its proper route, how remote it still was from the objective. There was no opposition to further advance but the men were exhausted. They fell asleep where they lay, and it was decided to dig in.

After daybreak, the four battalions of the Indian Brigade reached Ravine No. 3. They were directed toward their objective, Hill Q, but they had only reached Anzac the day before and had never seen the ground, and loss of direction was unavoidable. Eventually, they got themselves spread out on a line between the lower slopes of Damakjelik Spur and Rhododendron Spur.

Attack on the Nek

The dawn attack on The Nek and Baby 700 from within the position had been designed to cooperate with an attack by the right assaulting column from Chunuk Bair. As the hour of attack approached, it was known at corps headquarters that this position had not been gained but, in the hope that the attack would help Johnston's advance, it was allowed to go on. The attack was hopeless from the start. The only approach to the Turkish trenches on The Nek was very narrow and the space between the trenches was enfiladed by machine gun fire from spurs on either side. Four British lines assaulted successively; one or two men reached the Turkish trenches alive. Fifty per cent of the assaulting troops were lost and their sacrific was in vain, for Johnston, with his three battalions, was still waiting on Rhododendron Spur.

Comment

So far, the operation had been a failure. As we can see it now, it was a forlorn hope at the best and might well have been so considered before it was begun on account of its violation of some of the established principles of night attacks.

For night attacks, we say that prior reconnaissance must be thorough. In this case, it was not and could not be; the corollary is that movement over such parts of the terrain as were not known should have been abandoned.

Routes must be marked; they could not be and were not marked in this case, either artificially or by unmistakable terrain features.

The plan must be simple with no envelopments or cooperative attacks. Here, the plan was complicated beyond hope of success.

We say that fresh troops should be used in night attacks. This may be modified by saying that the efforts required of the troops should be adapted to their physical condition. Here, troops in poor condition were required to perform a task which would, in fact, have strained fresh troops in the daytime. The rate of advance for some portions of the attack—a mile an hour—was double that which could be expected over such difficult country.

These remarks apply mainly to the left assaulting column. In the other column, the terrain was known and the rate of advance slow. The plan was simple except for Johnston's division of his force to go around Table Top. The contemplated union of two forces marching on separated routes failed, as it will often fail at night, but only the smaller part of the force was lost. The failure of this part of the operation must be wholly attributed to poor execution, to a lack of the spirit of "Forward" at the crucial moment. The name of "Johnston" may well be remembered in connection with the statement that, in night operations, a strong leader should head each column.

We may therefore agree with the Official History in the opinion that the inclusion of Hills 971 and Q in the objective was the essential error in the planning; that an attack on Chunuk Bair alone could have succeeded; and that possession of that hill would have made untenable the whole Turkish position at Anzac.

The Anzac Attack Concluded (See Map 8)

On the morning of the 7th, Johnston, in command of the right assaulting column, was waiting and waiting for his fourth battalion. About 0630, some hours too late, he decided to wait no longer and started ahead. About 0730, he was within 500 yards of Chunuk Bair when he came under fire.

Colonel Kannengiesser (commander of the 9th Turkish Division), arriving ahead of his reinforcing regiments from Gaba Tepe, had appeared on the crest of Chunuk Bair about 0700 and found about 20 Turkish soldiers asleep around a gun. He ordered them to open fire on the advancing British. They told him, "We cannot open fire without orders from our battalion commander." He doesn't, he says, remember the words he used but he threw himself down among them and made them fire.

Johnston, with his 2,000 men faced by 20 Turks, held a conference. The leading battalion commander said his men were tired; the adjutant thought it would be better not to attack until night; Johnston agreed and so reported to the corps commander, General Godley. Godley insisted that an attack be made at once (1030 now, after this delay), but the leading units of the Turkish regiments had arrived and the attack was repulsed, not to be renewed until the following morning.

Cox's men of the left assaulting column were too exhausted and disorganized to make a further effort on the 7th. A brigade from the reserve was ordered to capture Hill Q and Chunuk Bair. The brigade commander made a reconnaissance and decided to advance up Ravine No. 3. When he returned to the assembly position of his troops, he found that his four battalions, through some misunderstanding, had started south toward Ravine No. 2. Orders were sent to recall them but one battalion was lost, the remainder did not return until dusk.

Another attempt by Cox to attack on the morning of the 8th failed, but part of Johnston's column managed to gain the near side of the Chunuk Bair crest.

Another attack was made on the 9th against the constantly increasing Turkish forces. One battalion captured Hill Q and started down the reverse slope. From

here, the waters of the Straits lay before them, the goal of the whole campaign, and for the second and last time British troops saw the Narrows. Suddenly, a salvo of artillery fire came down on them, most likely from their own naval or shore guns, and the survivors had to retreat.

Along the rest of the line, the attack was repulsed and again the situation began to stabilize. The Anzac plan had definitely failed.

Suvla; Turkish Disposition (See Map 9)

It will be remembered that, coincident with the Anzac attack, Hamilton had ordered two divisions (less a brigade) which we may consider as 22 battalions of about 20,000 men, to land at Suvla. This operation is particularly interesting on account of the nature of the defense made by the Turks and we will approach it first from the Turkish side.

Major Willmer was given four battalions of infantry, a pioneer company, a squadron of cavalry, nineteen guns, and the services of a labor battalion to defend the sector between the Azmak Dere and Ejelmer Bay.

The distance in a straight line from the mouth of the Azmak Dere to Ejelmer Bay is about 7 miles. The sector is naturally divided into two parts by the available landing beaches. Ejelmer Bay, with its limited facilities, constitutes the minor part. Within Suvla Bay and south of Nibrunesi Point are two or three miles of landing beach leading onto the plain. This plain extends about 4 miles from north to south, and about 3½ miles from east to west. It is commanded on the north by the Kiretch Tepe ridge, on the east by the Tekke Tepe ridge, and on the south, but at some distance, by Sari Bair. The Salt Lake, at the seaward side of the plain, constitutes an obstacle in winter but was more or less dry at this time of year; British accounts state that it was soft and sticky.

Immediately commanding the plain from the south is a ridge running southwest from the southern end of Tekke Tepe of about 300 feet elevation known as the W Hills. An off-shoot from this is Scimitar Hill, and immediately to the west are Chocolate and Green Hills. Between Salt Lake and the Bay is a hill called Lala Baba, and north of the Salt Lake is a minor terrain feature known as Hill 10.

The plain itself is covered with isolated trees and patches of brush but is more or less open. On the hills, however, the brush becomes thicker, the crest of Tekke Tepe being, in most places, accessible only by goat trails.

Now while he had no knowledge of the British plans, it was apparent to Willmer that if a landing in force was attempted on his front it would be combined with a determined attack in the adjoining Anzac sector, so that he could expect no assistance from that direction. The nearest troops from which he could expect support were those in the Bulair area, and at least 36 hours must elapse before they could come to his assistance. He anticipated that the task set for a force landing at Suvla would be to turn the right flank of the Turkish position at Anzac by advancing through the valley of the Azmak Dere. He could not hope with his small force, especially since he had neither machine guns nor barbed wire, to prevent the landing of a force so that his problem became that of preventing the enemy from gaining the hills overlooking the plain, and especially the W Hills spur which commanded the Azmak Dere valley from the north, for at least 36 hours after they had begun to land.

His predecessor in this sector had placed one battalion at Ejelmer Bay and had planned to construct a continuous line of trenches from Kiretch Tepe to the Azmak Dere. Willmer recognized that Ejelmer Bay was not suitable for landing in force and reduced the garrison at this point. He also knew that his force was too small to defend successfully a long line of trenches, and decided that his defensive dispositions must consist of a series of mutually supporting strong points.

He selected three main forward positions—on Kiretch Tepe, on Hill 10, and on Chocolate and Green Hills—and a main position on the line from Baka Baba to the W Hills.

One platoon and three old field guns without teams were at Ejelmer Bay.

One platoon and a mountain gun were at a small beach just west of Ejelmer Bay.

Two companies with two mountain guns were on the highest part of Kiretch Tepe with another company pushed well forward toward Suvla Point.

On Hill 10, was a company with a mountain gun with two additional companies sheltered immediately in rear.

One company held Lala Baba with a platoon out toward Nibrunesi Point.

There were sentry groups all along the shore.

There were three companies with two mountain guns on Chocolate Hill.

The pioneer company and thirty dismounted cavalrymen with two mountain guns were on the main position from Baka Baba to the W Hills.

The two batteries of field guns were on the forward slopes of Tekke Tepe.

The reserve battalion was held in the valley to the east of Tekke Tepe.

It is apparent that the greater part of his force was in the forward part of the sector but he gave careful instructions that, while they were to delay the landing and advance as much as possible, they were not to be cut off but were to retire in good order to the main position before becoming irretrievably engaged. Trenches in the strong points were six feet deep and as narrow and inconspicuous as possible. Contact mines and trip wires were laid on the most likely beaches. No infantry movement was allowed by day west of Tekke Tepe. All digging was done at night. Tactical exercises were held east of Tekke Tepe and the troops had to arrive there before daybreak and leave after dark. Gun positions were constantly changed, guns camouflaged, and dummy batteries erected. These various deceptive measures proved their value for, at the time of landing, the exact Turkish dispositions were unknown and Willmer's force was believed to be stronger, especially in guns, than it actually was. This conviction was one of the causes of the subsequent delay in the prosecution of the British attack.

The only signs that Willmer noted as indicating that the new attack would be directed against him were a slight increase in air activity and the arrival off the coast, on August 3, of three British ships which fired a few rounds to find out if Salt Lake was dry. He needed no other warning. On August 6, he spent the whole day in his forward positions and in the afternoon heard the bombardments which opened the attacks in the Helles and Anzac sectors. Shortly afterwards, he received an order direct from Von Sanders to send one battalion to the Anzac sector. His strength was now reduced by 25 per cent to three battalions.

Though he watched until after sunset, no movement on the sea was visible and he finally started to the rear, leaving orders for instant readiness throughout the night. At 2145, he was informed that the British were landing at Nibrunesi Point. He called headquarters, reported the news, asked for the return of his battalion, and was refused.

Plans for Attack

The British plan was that the 11th Division, supported by three cruisers and three monitors, was to land about 2200 from armored beetle boats and destroyers. One brigade was to land in the bay; the other two, south of Nibrunesi Point. The 10th Division (less one brigade) was to follow with a landing at dawn.

Lieutenant-General the Hon. Sir Frederick W. Stopford, K.C.M.G., K.C.V.O., C.B., was in command. He was over sixty years of age, had seen no active service since the siege of Ladysmith, when he was a general's secretary, and had never held high command in the field. His character was marked by hesitating deliberation and cautious apprehension of risks.

The issuing of the orders for this operation gives us one of the clearest examples of how this one factor alone can handicap an attack.

Hamilton's idea was expressed in a memorandum to Stopford on July 22. He stated unequivocably that the first task would be to capture the two horns of the bay and the Chocolate and W Hills, and to secure a footing along the Tekke Tepe Ridge. In particular, the memorandum said, "It is of first importance that the Chocolate and W Hills should be captured by a coup de main before daylight."

This task was at first satisfactory to Stopford, but on further study his confidence began to evaporate. He was convinced that he could not attack an organized system of trenches (which existed only in his imagination) without a large number of howitzers, and he asked that the objective be changed. Hamilton yielded to these objections and in the final order, the clear-cut directive to capture the W Hills before daylight was changed to read, "If it is possible, without prejudice to the attainment of your primary objective (to secure Suvla Bay as a northern base), to gain possession of these hills at an early period of your attack, it will greatly facilitate the capture and retention of Hill 971."

Stopford's corps order stated that the primary task was to secure Suvla Bay as a base but placed no emphasis on the necessity for speed to accomplish this before the arrival of Turkish reinforcements. The leading troops were, "if possible," to reach a certain point on Kiretch Tepe ridge and the subsequent action of the whole corps was to be governed by "correct appreciation of the situation." Nothing was said about the capture of the W Hills before dawn.

The 11th Division commander ordered the W Hills attacked "if possible," and by the time the brigade order was issued, the capture of these hills was not even provided for.

The original intention of the commander-in-chief had thus been so reduced that the only definite order which reached the troops was for the capture—by no definite hour—of the Chocolate Hills.

A further handicap was that the secrecy which surrounded the operation was so great that at the time of the landing many officers of the leading division had never seen a map of the area and had little or no idea of what was required.

The general plan of the 11th Division was as follows:

The 34th Brigade was to land inside the bay. This site for a landing had been opposed by the Navy for fear of shoal water but had been insisted on by Stopford and Hamilton had given way. One battalion was to move to and advance along Kiretch Tepe, and one was to capture Hill 10. The other two battalions were to move to Hill 10, and the three battalions then combine in an advance on Chocolate Hill.

The 32nd Brigade was to land just south of Nibrunesi Point, move along the shore to Hill 10, and support the 24th Brigade in its attack on Chocolate Hill. The reason for this circuitous movent, as well as for the landing inside the bay, was that Chocolate Hill was supposed to be less strongly defended on the north side, and Stopford was afraid of the trenches.

The 33rd Brigade was to land south of the 32nd. Two battalions were to dig a line from the Salt Lake to the beach in order to protect the landing place. The other two battalions, and the divisional pioneer battalion, were to move to the vicinity of Hill 10 as divisional reserve.

There seems to be no lack of caution in this plan, particularly when it is realized that the weakness of the defenders was appreciated and expressed in orders.

The Landing—Night, August 6-7

Just after 2130, the destroyers and beetles carrying the 32nd and 33rd Brigades approached the beach south of Nibrunesi Point, the destroyers stopped about 500 yards out, and the beetles proceeded in towards shore. They grounded within a few feet of the water's edge, the ramps were lowered on dry sand, and the troops poured ashore. Only one shot was fired and this killed a sailor on a beetle. Four battalions were ashore by 2200 without a casualty.

The two battalions on the right began to dig their line from the Salt Lake to the beach and were not disturbed.

Two companies started for Lala Baba. These were by no means fresh troops; like the rest of the division, most of them were weakened by the prevalent diarrhoea, some had received cholera inoculations only that morning, and all had been on their feet for 17 hours since daybreak. A few shots were fired from ahead and suddenly a flare burst from Lala Baba; the Turks were aroused and warned. The British came under a hot fire but assaulted and captured the hill. Most of the Turks retired but a few remained hidden in the deep trenches and then shot the attackers in the back as they passed over.

The way to Hill 10 was now open but the battalion commander and most of the officers had been killed, no one else knew what was expected, and the survivors could only lie down and wait. About 0030, the other battalion arrived, behind it the remaining two of the 32nd Brigade and two of the 33rd Brigade for division reserve. According to plan, the 32nd Brigade should now have pushed forward to Hill 10 to support the 34th but something was apparently wrong in front and it was decided not to advance.

Something was really wrong in front. The Navy had been all too right about landing in the bay. The three destroyers anchored about 1,000 yards too far to the south and in the wrong order. Some of the lighters grounded on a reef 50 yards from shore, the troops had to wade in water up to their necks, and the lighters could not get back for the second trip. In face, not all of the 34th Brigade was ashore by daylight and some few

troops had then to be sent around south of Nibrunesi Point on account of Turkish fire in the bay.

Meanwhile, however, one battalion was ashore by midnight and started for Kiretch Tepe. It reached the ridge about 0200, drove in the Turkish outpost and, by 0300, had reached a position about two miles east of Suvla Point but made no further advance.

Another battalion had also landed but was lying near the beach under the Turkish fire. This was mostly sniping but the rising of the moon and the white armbands of the British helped the marksmanship and there were many casualties. Hill 10 had not yet even been located and yet, within a mile, were six battalions idle at Lala Baba.

The 34th Brigade commander landed about 0330 and about this time a number of British were chased to the beach by a party of Turks. These were stopped and the brigadier ordered an attack on Hill 10 with the six platoons which were all he could get together. About daybreak, they started but captured a sand dune about 400 yards south of Hill 10 by mistake.

The Turks saw this as the beginning of the end in that locality and all but about 100 men sent to the rear. Nevertheless, it was 0600 before the British got two and a half battalions together and took the hill.

The division commander, General Hammersley, landed about 0045 and established headquarters near Nibrunesi Point, but took no effective steps to find out what was happening. According to the Official History, "The general, who had been feeling the climate severely, was by that time rather exhausted." It was not until 0500 that the knew the 34th Brigade was held up and sent orders for the 32nd Brigade to move from Lala Baba to assist.

General Stopford on H.M.S. Jonquil (she might well have been named "Tranquil") anchored in the bay soon after midnight. A little rifle fire and an occasional shell could be heard but otherwise all was quiet. Stopford went to sleep. No news came from shore, no officer was sent ashore to establish communication, no report was made to Hamilton, then or until after daybreak. All Hamilton heard, anxiously as he waited for news, was a private message from one wireless operator to another about 0200 to the effect that everything was quiet. He thought that everything was all right at Suvla and turned his attention to Anzac. It was many hours before any suspicion was aroused that all was not well.

Willmer, on the early morning of the 7th, reported to Von Sanders that Kiretch Tepe and Chocolate Hill were still in his hands but that more and more British were landing and that urgent reinforcements were required. Indeed they would seem to be for the 10th Division had arrived, the British had twenty-two battalions on shore; Willmer still had three.

Von Sanders knew on the afternoon of the 6th that strong attacks had started at Helles and on the south flank (Lone Pine) of the Anzac sector. That night, he received Willmer's report of the Suvla landing and knew, by then, that a strong effort was being made to break out north of Anzac. He alarmed two of the divisions, the 7th and 12th, at Bulair and ordered three battalions to start south. At 0530, August 7, these battalions were just starting; they were at least thirty hours away from Suvla. On receiving Willmer's report in the morning, Von Sanders was finally satisfied as to the location of the main attack and ordered the 7th and 12th Divisions to move; in the meantime, Willmer's small force would have to hold on.

August 7 (See Map 10)

During the day of the 7th occurred what must have been a very agreeable surprise to Willmer, seeking and hoping only for delay and with time the essence of his problem, for the British made no attack against his positions.

Space does not permit us to follow the British movements in detail during the days immediately following the landing but the events of the 7th are so enlightening and so symptomatic of the whole that they should be related in part, at least.

At daybreak, the 10th Division was beginning to arrive and there were six battalions present under the command of Hill (division second-in-command). Due to the excessive secrecy, he had absolutely no idea what he was supposed to do so he reported to Stopford. Stopford ordered him to land at the beach south of Nibrunesi Point and place himself under the orders of Hammersley (11th Division commander) in order to move to the north and attack Kiretch Tepe.

Then Mahon, commander of the 10th Division, arrived with the remaining three battalions. He was landed on the north arm of the bay and told that Hill with his six battalions would join him. Mahon sent two battalions along the ridge but they dug in beside the battalion already there.

A copy of these instructions was sent to Hammersley but did not reach him until noon. Meanwhile, he ordered Hill to make an attack around Salt Lake to capture Chocolate Hill so that already the two divisions are well on the way to being badly intermingled.

The battalions of the 32nd Brigade under Haggard and of the 34th Brigade under Sitwell were also mixed up in the vicinity of the Cut, Hill 10, and a point east of Hill 10. This was about 0800. The troops could have been sorted out and advanced; they were tired but had suffered few casualties. Haggard was under Sitwell's command. Opposition to the front was reported to Sitwell as being slight but he decided to dig in.

A report of this situation reached Hammersley about 0920, the first report he had had since 0530. However, he had had observers on Lala Baba and at 0800 had started issuing orders. He first issued an order for Hill, Sitwell, and Haggard to push vigorously to Chocolate Hill. This was, of course, an invitation to delay for Hill was just landing and the other two would have to wait.

At 0830, Hammersley issued another order directing Hill and Haggard to attack, but making no mention of Sitwell. Hill was not yet on the ground.

By 0900, Hammersley had seen Hill, gave him orders to attack Chocolate Hill from the vicinity of Hill 10, and sent Haggard another order to attack with him.

Meanwhile, Sitwell had received the first order and issued his own order for the attack about 0900, to begin on the arrival of Hill. Shortly afterwards, Haggard showed him the next two orders, so Sitwell cancelled his attack and took no further action. Haggard had to report to Hammersley that he had only one battalion available, that he was under Sitwell's orders, and did not know what to do.

By 1030, Hill had issued orders for his leading three battalions to march by the Cut, deploy north of Salt Lake and attack Chocolate Hill with, as he supposed, Haggard on his left. He went ahead of his troops to see Haggard who told him he could not move without Sitwell's sanction and that Sitwell refused to let him go.

Hill had either to attack alone or refer the matter back to Hammersley. He chose the latter alternative and

started his walk back through the heavy sand. On the way, he ordered his three battalions to halt and wait orders. Eventually, he found Hammersley on Lala Baba watching for the attack to commence. Hammersley told him a staff officer had been sent to explain things to Sitwell and that everything would be all right, so Hill went back and started his attack. By 1430, his troops were on a line from the northeast corner of Salt Lake, were under rifle fire from Baka Baba and shrapnel from Tekke Tepe, and could not advance. Hill begged Sitwell to cover his left flank and Sitwell consented.

But again Hammersley had changed his plan. Hill's attack was to be suspended and a new attack with more troops and a reduced objective was to begin at 1730.

Hill would not stop his attack but his troops were not able to advance until other battalions came up in support. Soon after 1900, they assaulted Chocolate Hill, and, shortly after, Chocolate and Green Hills were taken, the majority of the Turks retiring to the main position in accordance with orders.

The five British battalions on the hills were from three different brigades, none of the brigade commanders were present, so there was considerable confusion. No scouts were sent out and contact with the enemy was lost but the night passed quietly.

Stopford, throughout all this, was still at sea, literally and figuratively, and Hamilton was not aware of the situation.

Development of the Counterattack

Let us go over to the Turkish side for our next view of the situation. On the night of the 7th, the strong point on Kiretch Tepe was still held by three companies. The main line of defense on a front of about 3,000 yards was held by about 1,100 men. The three battalions from the isthmus were bivouacked about seven miles to the rear, exhausted after a forced march; the remainder of the 7th and 12th Divisions were still further to the rear. Willmer had hoped to be able to hold his forward positions for twelve hours and his main position for an additional twenty-four. Over twenty-four hours had elapsed and the main position was still untouched; he had inflicted casualties on the enemy to about the total of his own original strength.

On the other hand, by the following evening, the 8th, the British (to anticipate a little) had not yet attacked but there were still, after forty hours, no reinforcements for the Turks. During this whole period, success was still in the balance, to be grasped by the side that could move first.

Von Sanders, too, was having commander trouble but, unlike Hamilton, he knew what to do about it. On the afternoon of the 7th, Feizi Bey, corps commander of the 7th and 12th Divisions, arrived by motor at Von Sanders' headquarters (near Boghali) and reported that, although his troops had started from the isthmus only that morning, they had made a double march and had arrived in the valley east of Tekke Tepe. Von Sanders was somewhat surprised at this speed but ordered that the two divisions attack at dawn on the 8th. In the morning, he went out to watch the attack for he was still being pressed at Helles, the British were having some degree of success at Anzac, and the whole situation looked so serious that the German Chief of Staff of the Helles sector recommended withdrawal across the Straits (with the result that Von Sanders withdrew him) so it was vital he should be able to hold on at Suvla.

He found no attack; the optimistic report of the corps commander was justified only by the fact that the leading units had arrived; most of the corps was still in march formation. He ordered an attack for the evening; again no attack materialized. Von Sanders found that Feizi Bey was the victim of circumstances similar to those which had obtained among the British: his division commanders had persuaded him that the men were too tired, that he needed more artillery, et cetera, et cetera, so he postponed the attack until the following morning. Von Sanders immediately relieved him and placed Mustapha Kemal in command. It was too late to do anything that night, but Kemal could and did see that the attack was vigorously made on the morning of the 9th.

The Suvla Attack Concluded

It is apparent that throughout the 8th Stopford had still a good chance for success. Hammersley, on shore, was full of good intentions but the brigade commanders said the men needed rest, no word came from Stopford, so he did nothing.

Finally Stopford sent word ashore: dig in on a line where they were. A little later, he sent a message to both divisions congratulating them on their achievements and one in the same tenor to Hamilton. During this time, most of the troops were resting and bathing in the sea, plainly visible to the Australians desperately fighting in the Anzac sector to the south. One of Hamilton's staff who came over said it looked like a Bank Holiday. He asked one of the commanders what they were waiting for; answer, "For the Turks to get reinforcements."

About 1100, Hamilton wired Stopford that air patrols could see no Turks east of Tekke Tepe (although we know there were two divisions there) and that it was hoped he could advance and take that ridge. This spurred Stopford on to make an attack and he sent the following inspiring and resolute order ashore, "If you find the ground lightly held, push on. But in view of want of adequate artillery support, I do not want you to attack an entrenched position held in strength." This order was naturally obeyed in the spirit in which it was written; slight advances were made but nothing of importance was accomplished.

It was by now apparent to Hamilton that he should go to Suvla personally from his headquarters at Imbros but the destroyer assigned to him had broken down, it was 1630 before he could find a vessel to take him, and after 1800 before he arrived at Suvla.

Stopford, urged by a staff officer Hamilton had sent over in the morning, had finally gotten ashore. He found that Hammersley was arranging an attack for the following morning and returned, satisfied, to the ship. Here Hamilton found him and urged an attack that night.

We can't do that General; everything is all right but the men need a night's rest and more artillery.

General, tomorrow is too late. Tekke Tepe must be taken at once. Can't Hammersley go right ahead and do it?

Oh no, General; they don't think they can make a night advance.

General, there's no time to lose. I must go ashore and see Hammersley at once.

All right, General, but please excuse me from going with you. I walked around on shore for an hour this afternoon and my knee is tired.

So Hamilton went ashore by himself to see the division commanders and insisted that at least one brigade should advance, and that at least one battalion could cover the two and a half miles to Tekke Tepe during the night and

seize that important high ground before dawn. So Hammersley ordered the 32nd Brigade to make the attempt.

The brigade commander sent out runners to his four battalions to assemble for the attack. One battalion had gotten on Scimitar Hill without opposition. It was withdrawn to the assembly position, and the British never got so far again. Some of the runners got lost; it was 0200 before three of the battalions were assembled. The brigadier waited in vain until 0330 for the remaining battalion and then ordered the advance. They were a couple of hours too late.

The 12th Turkish Division had just arrived on the crest of the ridge. Though inferior in numbers to Stopford's total force, they stopped the attack. Hamilton could not yet accept it, but this was the end of the effort at Suvla.

During the following days, Stopford was reinforced with two additional divisions. The British made repeated efforts to advance and suffered heavy casualties under Stopford's mismanagement. Hamilton, characteristically avoiding an unpleasant decision, would not relieve him but reported the facts in a roundabout way to Kitchener. When Kitchener finally suggested that Stopford should come home, Hamilton replaced him on August 15.

Contact was made with the Anzac forces and the British established and were held to a line from the eastern end of Kiretch Tepe to Green Hill until the evacuation.

No lengthy enumeration of the lessons to be learned from this operation is needed and we may simply erect as an epitaph over this part of our story the words of Wolfe, written nearly a hundred and fifty years before: "Experience shows me that, in an affair depending on vigor and dispatch, the Generals should settle their plan of operations so that no time may be lost in idle debate and consultations when the sword should be drawn; that pushing on smartly is the road to success, and more particularly so in an affair of this nature; that nothing is to be reckoned an obstacle to your undertaking which is not found really so upon trial; that in war something must be allowed to chance and fortune, seeing it is in its nature hazardous and an option of difficulties."

Wolfe had just returned from a futile landing attack.

Evacuation (See Map 11)

From August 6 to 22 (the day after the last effort to advance had failed), the British lost 22,000 men at Suvla, 14,000 at Anzac, and 6,000 at Helles. Hamilton's force was thus reduced to 85,000 with a fighting strength of about 68,000. From this time on, the campaign was almost entirely defensive on both sides and there were no more serious engagements. Nevertheless, trench warfare and sickness caused a loss to the British of 24 per cent of the fighting strength each month.

On 11 October, Kitchener requested an estimate of the casualties which might be sustained in the event of evacuation. Hamilton replied that he could not consider such a step and four days later he was replaced by General Sir Charles Monro. With his mind made up before he started, having said that the only way to win the war was by killing Germans in France, Monro recommended the evacuation.

Having dispatched a soldier of high rank and great experience to take command for the express purpose of making an unbiased report, the British government would not follow the advice when they got it. They were reluctant to abandon a project which had promised so much, they feared the effect both at home and in the East of a final admission of defeat, and found it hard to face the prospect of losing 50 per cent of the force in withdrawing in the face of the enemy. Various alternate solutions—a new naval attack, a French attack on the Asiatic shore, renewal in force of the attack on the peninsula—were considered and rejected. Finally Kitchener himself went out to Gallipoli on November 9 and went carefully over the situation with General Birdwood, the Anzac commander, who succeeded Monro in command of the force. After two weeks, Kitchener, too, recommended the evacuation and on December 8, Birdwood received the definite order to leave Suvla and Anzac but to hold on to Helles.

In its simplest terms, this involved the withdrawal of 90,000 men, 200 guns, and 5,000 animals under the close observation of the enemy. At Anzac, the Turkish position was within 900 yards of the shore at one point. In many places, the trenches were less than 10 yards apart, and the beaches on which the embarkation must take place were within range of the Turkish artillery. The coast was believed to be watched by enemy submarines, it was the season of winter gales, and even a moderate sea would halt the embarkation.

Moreover, it was almost certain that the enemy was aware of the intention to evacuate. The British papers in October and again in November reported debates in the House of Lords in which the recommendations and the decision to evacuate were discussed. After the war, it was discovered that the Germans could not believe in such carelessness and thought these accounts were camouflage for a further attack.

Even before the definite order was received preparations were begun so that it could be promptly executed. At first, it was considered that embarkation and fighting off the pursuing Turks would be simultaneous and that casualties would be severe. Gradually it was realized that there was a reasonable chance that the Turks could be deceived until the last man had left, and preparations were made on this basis.

At Anzac, which is the only area we will consider in detail, it was essential that the front line trenches be held to the last on account of their proximity to the shore. At Russell's Top, for instance, the Turks would only have to advance 300 yards to command the beach at a range of 500 yards. Immediately, the amount of rifle fire was reduced and periods of silence were begun to accustom the enemy to this practice as a routine over the period of three weeks which was to elapse before the evacuation. At the same time, the forwarding of such supplies as would not be needed for some months, in case it was decided to remain, was halted.

On receipt of the definite order on December 8, the reduction of the garrison from 36,000 to 20,000 men, the minimum number which could hold the line for a short time, was begun. Every effort was made to deceive the enemy. Artillery fire schedules were so arranged that one gun of each battery would be able to keep up the fire to which the Turks had become accustomed. The guns were then gradually withdrawn until each battery was reduced to one gun. The infantry continued working on trenches and putting up wire as usual.

The withdrawal of wagons, animals, and stores was speeded up as much as possible. Everything leaving Anzac was withdrawn by night but anything arriving was brought in ostentatiously by day. A detail of troops was kept near the landing in dugouts, was taken out to sea each night, and brought in at daylight. Where visible stores were evacuated, empty boxes were piled up to

replace them. All tents, even though empty, were left standing.

The Navy could take off 10,000 men each night so the final phase required two nights. On the night of December 18, 10,000 men moved silently down to the beach and were taken off.

During the 19th, those left on shore were busy simulating the activity of twice their number and making the final preparations for departure. The Turks did not suspect, the weather held good, and the final withdrawal began. All the steps had been meticulously worked out and all precautions taken. Shoes were tied up in rags to deaden their sound. Routes to the beach were marked off with trails of flour or salt. All trench routes which were not to be used were wired off, guides were posted at the necessary points, and a detailed time table carefully followed. In the front-line trenches, some rifles were left with mechanical contrivances to fire them automatically after the departure of the troops.

For the last step, the men were divided into A, B, and C parties. At dusk on the 19th, the A party of 4,000 men left the trenches for the beach and were embarked. The B party left between 2100 and 2300, while the remaining men went up and down the trenches, firing rifles from various places, and finally arranging rifles and bombs so they would fire up to half an hour after the trenches were deserted.

At 0330, the last of the C party had left and a mine on Russell's Top was exploded. All the men were off the shore and the dumps of stores which could not be removed set on fire by 0400, but it was daylight before the Turks moved forward and discovered the empty trenches.

At Suvla, the evacuation was equally successful though, on account of the distance from the front line to the beaches, the system was varied by establishing several defensive lines through which the forward troops successively passed.

On December 28, orders were received to evacuate Helles. Obviously, this would be a more difficult problem with the Turks on the alert after the withdrawal from Anzac and Suvla. The operation was carried out in much the same manner with some improvements from past experience. Over a period of days, personnel and supplies were reduced to a minimum so that on January 7 there were only 19,000 men holding the line at Helles instead of the normal 40,000. That morning, the Turks attempted an attack but could not get their men to leave the trenches against the British fire. The strength of the resistance convinced the Turks that no withdrawal was yet in progress. That night, 2,000 men were taken off, leaving on shore the maximum number the Navy could remove in a single night. On the night of the 8th, the final evacuation was made. The weather was bad and considerable difficulty was experienced in the embarkation, but the Turks did not believe the move could be made in the storm and the operation was successful.

134,000 men, large quantities of guns, animals and stores had been removed from the peninsula with a casualty list of three slightly wounded, a remarkable accomplishment. Thus ended the campaign, its only properly conducted operation being the one which acknowledged its failure. The British and French had employed 490,000 men finally to fail in an operation which they had begun with 75,000; their casualties were over 120,000. The Turks had employed 800,000 and had lost over 200,000 men.

The dream of attacking Germany in the rear was over. Italy, it is true, had joined the Allies in May, but Greece would not move, and Bulgaria joined the Central Powers. Serbia was over-run, Germany got her through route to the east, and Russia was cut off. Turkey remained a factor in the war and engaged the attention of thousands of British troops until 1918.

Hamilton was disgraced. Churchill resigned from the Cabinet and went to France as a battalion commander; he has since made several political comebacks, not caring that Captain Puleston said of him that even Great Britain could hardly survive another Great War and another Churchill. Kitchener stayed on, only to be drowned in a torpedoed ship in the North Sea a few months later.

Conclusion

Of all the reasons to which may be attributed the failure of the campaign, the basic one is certainly an utter lack of preparation before it began. This lesson may be of little value to us as individuals on so large a scale, for our chances of being Secretary of War or of the Navy are rather remote, but as we consider the failure to appreciate the real situation and what it involved both in cost and probable profit, the piecemeal and inappropriate naval efforts, the haphazard assembling of the military force, the inadequate personnel and the lack of sufficient material means, the delay, the forfeiture of surprise, and the restrictions imposed from 3,000 miles away on the commander in the field, we may perhaps conclude that Sir Ian Hamilton's first effort was doomed from the start. This method, or lack of method, of engaging in military enterprises is apparently an unavoidable characteristic of a representative form of government. It is, then, an inescapable disadvantage which it is not within our power to remedy but the existence of which we should appreciate as requiring extra exertions to overcome.

As we have seen, in spite of initial handicaps, the possibilities of success were still with Hamilton. He was not only theoretically able to gain tactical surprise and superior concentration against the enemy but actually did have these advantages at the beginning of each of his attacks.

That the plans failed in execution must, as has been indicated, be primarily attributed to the character of the commander-in-chief. Tactical mistakes will inevitably be made, unexpected opportunities will appear. The mistakes can be redeemed, the opportunities exploited, but only by a commander who is unhesitating and bold in meeting the responsibilities of his position in controlling the action. There are few operations in which the divergent characteristics of the two commanders are so marked and emphasized by their direct influence on the results.

In addition, the attack suffers certain natural or inherent disadvantages in that movement and action tend to break down the best staff plans with direct influence on the tactical plans. For a landing attack, recognized as the most hazardous of military operations, the extension of plans to the minutest detail is essential. We have not been able to examine such details but, as an example, it may be noted that for the Anzac landing, the naval orders alone covered twenty-seven typewritten pages. Here again is the contrast between detail of plan and detail of execution for it is safe to say that of all the detailed arrangements made at Gallipoli for troop dispositions, naval gunfire support, communications, evacuation of wounded, supply, and many other features, there was not one which did not break down and, in its

total or partial collapse, exercise a serious effect on the action. This is to be expected to greater or less degree in every active operation. No plan can foresee the exact number of boats which will be rendered useless and so unavailable for a second trip, or how many boats will be delayed for how long by clearing out the dead and wounded; no plan can designate which water-lighters will aground, which water-hoses will be cut by troops half mad with thirst. All that can be done is to appreciate that these and many other things will occur and that the landing plan should have what we may call a flexible administrative reserve as well as a flexible troop reserve.

In evaluating the defense, we may consider that the system of defense adopted and its success may prove to us that when a large area is to be defended by relatively small forces, the system of making the beach the delaying line with mobile reserves in rear is the proper one. We cannot be completely satisfied, however, with Von Sander's employment of his main reserves. If he was more concerned for the safety of Bulair than actual events warranted, this fact was at least partly responsible for the decision of the British not to attack there, a disadvantage the defender will always have to face, *but* Von Sander's delay in moving troops from that area to meet the first attack was the factor which gave the British the great opportunities of which they failed to take advantage.

We have seen illustrated by the defense, the proper balance of strength between troops and terrain. At Anzac, where the terrain possesses natural strength, few troops were required to defend it; at Helles, where the beaches were more accessible, the routes of advance more open, a comparatively larger force was used. Above all, we have seen that in a defense of this sort, the defender must have flexibility and mobility, and that the conduct of the defense must be marked by rapid and aggressive action.

The Turkish defense at the Helles beaches may be criticized as faulty in a very important respect. It will be recalled that Y Beach was not defended because it was considered unsuitable for landing; that at W Beach, the success of the landing party was effected by the landing of the second subwave over rocks at one point of the cove, thereby taking the defenders in the rear; and that at V Beach, the only thing that saved the attackers from annihilation was the cover afforded by a low sand back defiladed from fire. That the existence of these conditions operated to the advantage of the attackers, indicates imperfect reconnaissance. In any landing operation, such minor features may mean the difference between success and failure. Often they will not appear on a map, and we therefore say that detailed, personal reconnaissance is an essential feature of beach defense. Such reconnaissance must be made from the viewpoint of the attacker; that is, the defender must actually get out in small boats and attempt to land at doubtful points and no point on the coast can be considered safe from landing until such a test has actually been made.

In considering on the side of the attack, first, whether landings should be made at defended or undefended beaches, no definite conclusion can be drawn. The question is directly related to the effort of the defender to equalize the defensive value of all landing areas by balancing the terrain strength with troop strength. If a defended beach is attacked, it will be one which is favorable for retention as a landing place and for further advance; if an undefended beach is attacked, it will be unfavorable in one or both features. We have had examples of both of these situations. At Helles, the defending troops prevented the advance; at Anzac, the difficult terrain was more directly responsible. The exception to the dilemma occurs where the attacker lands at a beach which the defender has erroneously neglected, believing it unsuitable. This was the case at Y Beach, and that landing would seem to have been the key to the situation at Helles.

However, it is no use landing at such a spot unless its weakness is exploited. There is no use saying, "I will land at this unlikely spot in order to surprise the enemy" and then, when the landing is successful, doing nothing about it. This is where flexibility both in the mind of the commander and in the plan is essential. Hamilton's plan was, to some degree, inflexible because he had no general reserve, and the flexibility of his mind was counterbalanced by lack of decision.

When we consider the question of day or night landings, we find that at Helles the day landing destroyed surprise and exposed the troops to fire, and the compensation of being able to employ ships' gunfire in support was not sufficient. At Anzac, with the approach in darkness and the landing at dawn, surprise was complete, but so, too, was confusion. General Callwell loyally remarks in his book that the result of the battle of the beaches at Helles was to prove to the world that it is not impossible for troops of the very best class to effect a landing in broad daylight in the face of relentless and skilfully conducted opposition; but the heavy losses and the paralysis of immediate forward movement resulting from doing so may well prove to us the extreme folly of such an attempt. We have today an alternative not available to Hamilton, the use of a smoke screen. This may or may not appear to be the solution of the problem when we remember the crudity and weakness of the Turkish beach defense as compared with the type of defense with its elaborate system of fires which can be established today.

As we have noted, the value of supporting ships' gunfire against field fortifications was far less than had been expected. On occasion, as against troops in the open, it was extremely effective but these occasions were so rare that they are related in the histories as remarkable instances. To expect naval guns to destroy wire or other beach defenses or to blast the defenders from their shelters is to expect the impossible. Naturally, as the situation stabilized, naval gunfire increased in effectiveness. At Anzac, the Turks pushed their trenches close to those of the Australians to escape its effects. At Suvla, Von Sanders ordered the counterattack of his reserve to begin either in the morning or at night; the reason for selecting these times was to avoid exposing the troops to naval gunfire as they crossed Tekke Tepe. In the early morning, the sun would blind the gunners; at night, the poor light would affect the firing.

The value of an expedient like the use of the River Clyde against a defended beach is disputable. It has great advantages in bringing the troops as far as the beach in safety and in providing a base of supporting fire, but when the troops start to debark, the exits from the ship form a defile on which will be concentrated the defensive fire. We may conclude, therefore, that debarkation to the beach from a grounded ship can only be made under the cover of real or artificial darkness.

The value of the feint made in the Gulf of Saros in detaining Von Sanders' troops in that area has already been mentioned. Such an operation to be of assistance to the main landing must fulfill two conditions: it must

be realistically made and to accomplish this it may require ships, troops, and guns to be diverted from the main landing; second, it must be made at a point about which the defender is apprehensive.

There occasionally appears a sentiment that set forms and rules for writing orders are not necessary; but these forms as we know them today have not been arbitrarily fixed. They are derived from the experiences of countless past operations, and every rule we have is based on some past failure or confusion. At Y Beach, each of the two battalion commanders present thought that he was in command. This is an example of the necessity for saying that when two organizations, not part of a common larger unit, form a single task group, the name of the commander is set forth in the order. This is particularly important when, as at Y Beach, the organizations are of separate services and seniority not readily determined. As we reconsider the orders for the Suvla landing, we find the reasons why it is said that such phrases as "if possible" are to be avoided, that the intention of the commander is to be expressed in definite and unequivocal terms, and that the order of each lower unit repeats as its mission, in the same terms, the task set by the higher commander.

These are but a few of the lessons to be learned from this campaign; others have been mentioned throughout the account of the actions; still others will have been deduced from the various situations. The Gallipoli campaign, because of its scope and variety and because of the material available, is an essential source of study for the Marine officers. To what extent the basic errors may be avoided in the future is unpredictable; nor can we fully estimate the effect of present organizations and weapons. For the defense, we have increased automatic fire at the beaches which may be delivered by indirect means, and increased mobility, through mechanization, for reserves. For the attack, we have the unknown factor of air bombardment and the ability, within limits, to screen movements by smoke. The most promising weapon for the assault on a defended beach is the amphibious tank, undeveloped and ignored by us but not by others. To both sides, there is available what Hamlet called "no other thing than a foul and pestilential collection of vapors" which the chemical warfare service can provide and which is far more advantageous to the defender than to the attacker.

This article, slightly revised from two lectures given at the Marine Corps Schools, was deliberately entitled "An Introduction," for in the space available to present the story of an active operation involving over a million men for nearly nine months, no more than a bare outline is possible. The account, therefore, is lamentably incomplete particularly in administrative and logistical details while the tactical picture, correct in its broader aspects, does not always do justice to either the commanders or the troops because consideration of many important factors has necessarily been omitted.

The British Official History of the Gallipoli Campaign, compiled by Brigadier General C. F. Aspinall-Oglander in two volumes of text and two volumes of appendices, is most complete and interesting; the abundance of maps, sketches, and photographs makes it eminently readable. This work should be self-required reading for every Marine and naval officer who pretends to any interest in landing operations. It is available to officers throughout the service on one-month loan, sent and returned by franked mail, from the Library, Marine Corps Schools, Quantico, Virginia.

MARINE CORPS RESERVE (F)

(*Continued from page* 31)

Disenrollment

On July 30, 1919, orders were issued by the Major General Commandant for the immediate discharge of all female reservists. On that date 118 remained on active duty and were transferred to an inactive status in the reserve. Each reservist upon discharge was furnished mileage to her legal residence which she had recorded officially. Disenrollment from the Marine Corps Reserve (inactive status) was gradual and now there are no women in the regular service or in the reserve.

The majority returned to their homes to follow the callings which they had given up to enlist to do their bit; others remained on duty at Marine Corps Headquarters, supply depots, or recruiting offices, performing clerical work in a civil service status. A formal mental examination was given by the Civil Service Bureau to those who chose to remain in the federal service.

Headquarters Clerical Force

At present the clerical force of Marine Corps Headquarters includes nineteen (19) who have had prior service in the Marine Corps Reserve, apportioned to the departments as follows:

Major and General Commandant's Office and Adjutant and Inspector's Department	8
Quartermaster's Department	4
Paymaster's Department	7

Benefits Received

The situation of serving on active duty in the Marine Corps was one many aspired to and only several hundred attained. One of the greatest privileges a member of the armed forces of the United States receives is the right for burial in Arlington National Cemetery. Several of those who have died indicated to their next of kin their preference to be laid away in this cemetery controlled by the government, and when such a funeral takes place it is conducted in Arlington in military style the same as for an enlisted man of the armed forces.

In addition to the right of burial in Arlington National Cemetery in the enlisted section for World War Veterans, the female reservists benefited in many respcts by their status, the most important privileges being:

(1) Eligibility for government insurance.

(2) $60 bonus on discharge.

World War Adjusted Compensation at the rate of $1.00 a day for home service performed during the period from April 5, 1917, to July 1, 1919.

State bonus if legal resident at time of enlistment of Pennsylvania, New York, Massachusetts, Rhode Island, Maine, New Jersey, New Hampshire, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, South Dakota, Ohio, Oregon, Vermont, Washington, Wisconsin.

(3) Medical treatment and hospitalization under the regulations of the Veterans Administration for service connected disability.

(4) Five per cent added to earned rating in examinations for entrance to classified service under Civil Service Regulations.

AUTHORITY OF LAW

On February 13, 1919, the Major General Commandant recommended certain legislation for incorporation in the Naval Appropriation Bill by the Senate Committee on Naval Affairs to cover the payments to women enrolled as a military necessity during the period of emergency, and the following proviso was included in the Naval Appropriation Act of July 11, 1919, under the subhead "MARINE CORPS:"

"Provided, That the words 'enlisted men,' as contained in prior appropriation Acts, shall not be construed to deprive women, enlisted or enrolled in the naval service, of the pay, allowances, gratuities, and other benefits granted by law to the enlisted personnel of the Navy and Marine Corps."

CONCLUSION

In reply to an inquiry relative to the service performed by the female reservists in 1918 and 1919 under the immediate direction of military authority, the Major General Commandant of the Marine Corps, George Barnett, stated June 30, 1919:

APPOINTMENTS

FROM 14 FEBRUARY, 1936

2nd Lieut. Boyd E. Phelps, VMCR.
2nd Lieut. Walter N. Gibson, FMCR.
2nd Lieut. Neil G. Payne, VMCR.
2nd Lieut. Robert D. Robinson, VMCR.

FROM 26 FEBRUARY, 1936

1st Lieut. John E. Fondahl, FMCR.
2nd Lieut. William C. Mikell, VMCR.
2nd Lieut. Philip G. Pacheco, FMCR.
2nd Lieut. Rathvon McC. Tompkins, VMCR.
2nd Lieut. Glenn D. Morgan, VMCR.

FROM 13 MARCH, 1936

1st Lieut. Hugh J. Krampe, FMCR.
1st Lieut. Boyd E. Phelps, VMCR.
1st Lieut. Joseph T. Crowley, FMCR.
1st Lieut. Evert F. Arnold, FMCR.
2nd Lieut. Joseph R. Sasser, VMCR.

FROM 21 MARCH, 1936

1st Lieut. Donald A. Kurtz, VMCR.
2nd Lieut. Douglas J. Peacher, VMCR.
2nd Lieut. Herbert R. Nusbaum, VMCR.
2nd Lieut. John F. Jarvis, FMCR.

FROM 24 MARCH, 1936

2nd Lieut. Hudson T. Patten, Jr., FMCR.

FROM 28 MARCH, 1936

1st Lieut. William Chalfant, 3rd, FMCR.
2nd Lieut. James M. McQueen, Jr., VMCR.

FROM 1 APRIL, 1936

Captain Arthur Snyder, VMCR.

FROM 21 APRIL, 1936

Captain Stephen Brown, VMCR.
2nd Lieut. Henry C. Drewes, FMCR.

FROM 22 APRIL, 1936

Captain Edmund S. Lowe, VMCR.

PROMOTIONS

FROM 28 JANUARY, 1936

Captain John C. Machamer from 1st Lieut.
Captain Raymond W. Hanson from 1st Lieut.
Captain Ira F. Gillikin from 1st Lieut.
Captain Roy H. Burton from 1st Lieut.
Captain Edmond E. Fout from 1st Lieut.
Captain Frederick C. Donald from 1st Lieut.
Captain Frank V. McKinless from 1st Lieut.
Captain David F. Ross from 1st Lieut.
Captain Rex Saffer from 1st Lieut.
Captain Kenneth P. Corson from 1st Lieut.
Captain Joseph E. O'Brien from 1st Lieut.
Captain Victor W. Worledge from 1st Lieut.
Captain George F. Malcolm from 1st Lieut.
Captain Floyd E. Smith from 1st Lieut.
Captain Erwin G. Taylor from 1st Lieut.
Captain Samuel F. Patterson from 1st Lieut.
Captain Levi C. Gates from 1st Lieut.

FROM 28 MARCH, 1936

1st Lieut. William J. Wise, FMCR.

FROM 29 MAY, 1934

Major William J. Platten from Captain.

FROM 1 SEPTEMBER, 1935

Major Bernard W. Bierman from Captain.

FROM 1 APRIL, 1936

Major Alton N. Parker from Captain.

DISCHARGED

2nd Lieut. Lucien DeB. Kelley, Feb. 12, 1936.
2nd Lieut. Fred E. Billman, Feb. 15, 1936.
2nd Lieut William E. McKevitt, Feb. 15, 1936.
1st Lieut. Howard A. Rogers, Feb. 19, 1936.
1st Lieut. Ross M. Hutchinson, Feb. 19, 1936.
2nd Lieut. Carl E. Grant, March 4, 1936.
1st Lieut. George C. Porter, March 5, 1936.
1st Lieut. Bertram A. Hedges, March 17, 1936.
1st Lieut. Philip R. Hockenberger, March 17, 1936.

RESIGNATIONS

Captain T. H. Hart, April 25, 1936.
2nd Lieut. Gilbert L. Rodier, March 4, 1936.
2nd Lieut. Louis J. Hoeppner, March 7, 1936.
1st Lieut. Howard H. Adams, March 9, 1936.
1st Lieut. Charles S. Weiler, March 19, 1936.
1st Lieut. Carl L. Berglund, April 24, 1936.
Marine Gunner Charles H. Hunnell, April 24, 1936.

TRANSFERRED TO HONORARY RETIRED LIST

Captain Michael H. O'Brien, April 9, 1936.
2nd Lieut. Harold D. Golds, March 7, 1936.

DIED

Colonel Henry L. Roosevelt, VMCR, Feb. 22, 1936.

"It is a pleasure, but not by any means an unexpected one, to be able to state that the service rendered by the reservists (female) has been uniformly excellent. It has, in fact, been exactly what the intelligence and goodness of our countrywomen would lead one to expect."

The History of the Royal Marines, by Colonel Cyril Field, R.M.L.I., contains a chapter on "The Life and Adventures of Hannah Snell, the 'Female Marine.'" The story of her service and escapades in the Royal Marines is a good one and Colonel Field states: "The interest which has always been taken in it by the Marine Corps is evinced by the number of portraits of the militant lady which adorn the various officers' and sergeants' messes." But this "female warrior" was an imposter and not until her discharge June 9, 1750, did she reveal her sex!

The United States Marine Corps has no such female masquerader to boast of and no romantic tales of women who succeeded in enlisting and performing active duty with troops. When our history is written it will contain only such tales as are recorded about the women who served in the Marine Corps Reserve from August 13, 1918, to July 31, 1919. The provisions of the Reserve Act of February 28, 1925, include the following: "The Reserve shall be composed of 'male' citizens of the United States." It may be presumed that the women who enlisted during the World War are the only ones whose service will ever be recorded.

A HISTORY OF THE EDUCATION OF MARINE OFFICERS

(*Continued from page* 19)

naval doctrine. Several Marine officers, particularly Captains Earl H. Ellis and Logan Feland, made extensive studies of the problems connected with advanced bases and their ideas together with the teachings of the Naval War College led to the forming of an advance base organization and the Advanced Base School which worked in conjunction with each other. It was during the period of the existence of these two units that the Marine Corps made its greatest pre-war advance in technical knowledge of weapons other than those of regular infantry. A site had been procured as early as 1906 for the development of a training place for such a unit at New London, but exigencies of the service did not permit its establishment at that time and training was not begun there until five years later when ten officers took up the study of advanced bases at New London. In July of the following year the school was in full operation at Philadelphia as were some of the units of the advanced base force where they had been organized and equipped. A study of the workings and the handling of such heavy advanced base material as guns, submarine mines, torpedoes, the means for transporting these heavy materials as well as the instruments of communication and fire control were made the subject of considerable study as was the tactical use of these weapons. A theoretical course of instruction for a group of officers was conducted between November 1, 1912, and April 30, 1913. The period from May 1 to October 1 was devoted to practical experience in handling the advanced base equipment. Most of the personnel, however, was taken from the organization in May, 1914, and sent on the expedition to Vera Cruz, and constituted the special troops for the brigade of Marines with that expeditionary force.

During the brief stay of a brigade of Marines at Guantanamo Bay, Cuba, while waiting for something serious to happen in Mexico in 1913, the advanced base work and the study of other special arms was undertaken by certain units of the brigade and by a considerable group of officers. When the brigade returned to the United States 5-inch and 3-inch gun batteries and 3-inch landing gun batteries as well as a mine company, a signal company and an engineer company with some seven hundred officers and enlisted men were reorganized at Philadelphia and resumed the study of the use of the complicated advanced base equipment. This organization was soon afterwards again disrupted by the expeditionary forces being sent to Haiti and Santo Domingo which were followed soon afterwards by the outbreak of the World War which put an end to this form of higher education for Marine officers.

Instruction of Marine Officers of Naval Schools

As noted above, Marine officers began to attend the Naval War College at Newport, R. I., shortly after its establishment. The course of study initially had to do with naval technical equipment such as torpedoes, with which the Marine Corps had never been equipped. Marine officers attended this institution at irregular intervals but not until after the turn of the century did it become a regular policy to keep one or more Marine officers there in attendance when their services could be spared. Upon the outbreak of the World War about twenty-five Marine officers who were still in the service had attended this institution and several had acted as instructors in the Naval War College.

Officers Attending Army Schools

The Army War College which was opened early in the present century adopted the policy in 1904 of having officers of the naval service attend that institution while army officers were allowed to attend the Naval War College. One or more Marine officers were in regular attendance there from 1910 to the outbreak of the World War, several of whom gained valuable instruction which they were able to apply to great advantage during that war. General Lejeune, for example, who was perhaps the most outstanding student of the class of 1910 showed clearly by his services in France the usefulness of that course of instruction. About ten officers were still on the active list of the Marine Corps at the outbreak of the World War who had taken this course.

The practice of sending Marine officers to the various general service schools at Fort Leavenworth, Kansas, began about 1910. Some ten or twelve of our officers took either the course of the Army School of the Line or the Staff College Course prior to the outbreak of the war. The Army gave recognition to two of these officers in the American Expeditionary Force in France by making one of them a regimental commander of a regular Army regiment and the other a division general staff officer of the Second Division.

The War Test of Marine Corps Education

It is rather difficult to estimate the real advantages gained by educating Marine officers in higher principles of warfare except by checking the results obtained in actual field operation. At the outbreak of the World War practically all of the company officers in the Marine Corps

had been through a fairly comprehensive course in the School of Application or in the Marine Officers' Schools. Formal military education within the field grades of the Corps was not, however, so general. As noted above a considerable number had attended the service schools in the Army and Navy while others, of course, had added greatly to their store of military knowledge by experience and by their own study. A thorough test in actual application of officers' military training during the World War is difficult in the Marine Corps as only a relatively small part of its officers who had attended its officers' schools saw duty in any theater of operations. As far as evaluations are possible, however, it is believed that the training given officers prior to the outbreak of that war had been of great assistance to them. Much still had to be learned on the field of battle but these officers were trained at least in how to think through battle situations. Failures in action can, in the opinion of the writer, not be attributed to poor previous training, but were due to other reasons.

Marine Officers in Schools in France During the World War

A considerable number of Marine officers attached to the American Expeditionary Force in France attended various schools established by the American Army and several attended schools established by the British Expeditionary Force and by the French Army. Many officers attached to the Fourth Brigade took the short course of intensive instruction given at the First Corps School at Gondrecourt, France, during the fall and winter of 1917-18, prior to going into the line. This course of instruction was an intensive practical one, largely pertaining to matters of technique which were applicable to the actual conditions at the front. These short courses of instruction no doubt contributed very materially to the success of the Fourth Brigade during the war.

Several officers were sent to the Army Staff School at Longre, France, for an intensive course in general staff duties. They were there subjected to a process of ruthless elimination, but those who made good in the course of instruction distinguished themselves as general staff officers of divisions, corps and Army, during the remainder of the war. As a result of his ability, previous training and instruction at that school, Major Holland Smith was advanced successively from G-2 of a Division to the same staff section in a corps and finally to G-3 of the American Army of Occupation in Germany.

The accumulated experience of our officers with the American Expeditionary Force, France, and the knowledge gained in the several schools attended in that country was utilized after the war in completely revamping our system of Marine Corps Schools and in reestablishing in them a curriculum which contained the advancements in military knowledge which had been gained during the World War.

Marine Corps Schools in the United States During the World War

The regular complete courses of Marine Officers' Schools were discontinued during the World War. What remained of the Marine Officers' Schools at Norfolk was moved to Quantico in 1917 but its instruction of officers continued for each class for only a few weeks at the most until they were assigned to other duties. An officers' training camp was conducted at Quantico during the World War where a considerable number of our present officers received a basic course of instruction prior to being given commissions as temporary or reserve officers in the Marine Corps. Part of the educational system in the Marine Corps during that war was carried on by the Overseas Depot which gave short intensive courses of instruction in machine guns, automatic rifles, grenades, trench mortars, field engineering, gas defense, musketry, scouting, sniping, etc. The schools at that training center were attended by both officers and enlisted men and were carried on similarly to the intensive training schools in the A.E.F., France, which were in turn similar to the training centers of the French and British armies. War-time enthusiasm enabled such schools to accomplish a great deal in a relatively short time. The lessons learned in these brief courses of instruction not only at Quantico but in France were of course later carried over and became part of the stock of knowledge of technique of infantry weapons which became a basic part of our educational system as it was reorganized after the war.

Reestablishment of Marine Officers' Schools After the World War

The conclusion of peace left the war-time officers training camp still in existence at Quantico. Its buildings, equipment and part of the instruction staff were still available after demobilization. Quantico was left with a considerable surplus of officers and very few troops. With the remaining staff of the training camp and some additional officers the Marine Officers' Training School was established in the Fall of 1919 in order to occupy the time of officers who were available to attend its course of instruction. Twenty-nine officers were made available and a course of instruction for twenty-two weeks was given to that class by a very small staff of instructors. Some of the old training school subjects were carried over while the courses in tactics, topography and musketry were considerably enlarged upon and more practical field work was added. Attempts were made to introduce in the course of tactics some of the far-reaching changes in that branch of military learning which had resulted from the World War. In January, 1920, the class was augmented to sixty-six officers varying in rank from second lieutenants to captains, but due to a number of resignations, transfers and the organization of a regiment for expeditionary duty, the class was reduced to thirty-one by the end of the course.

While the above course was in progress another officers' school was established January 12, 1920, in Quantico and designated the Marine Officers' Infantry School, taking its name, no doubt, from the newly-established Infantry School at Camp Benning, Ga. Seventeen officers of various ranks were enrolled as students to take the course while the faculty was recruited partly from officers who had had service overseas. The instructors set out from scratch to develop a curriculum and the necessary subject matter for study and lectures. The school was formally opened early in February and devoted the first month to the study of the standardized course in topography in order to give the other departments time to establish themselves. Instruction in artillery and law was begun in April. The conference system, supplemented by lectures, problems and exercises in the study of tactics was initiated. The only text books available for study were Field Service Regulations, Infantry Drill Regulations, American Expeditionary Force and the Technique of Modern Tactics, a pre-war book. The school continued until June 30 when it closed its session with a result that only eight graduated from the course, the remainder having been transferred or failed to make the prescribed grades.

One of the greatest difficulties that the Marine Corps has encountered in connection with its education of officers grew out of the fact that many of the older officers of the Corps felt that their experience and years of service qualified them for any duty to which they might be assigned. The World War had wrought many and far-reaching changes in tactics and the related military sciences. This fact was no doubt generally appreciated but many of our officers appear to have resented being sent back to school pretty much the same as they had gone to the School of Application or the Marine Officers' School of pre-war time. There was especially considerable resentment on the part of some officers to attending classes conducted by their juniors. The officers of the corps who had had extensive experience with the A.E.F. had outgrown this point of view as all of the allied armies conducted schools without regard to the rank of the officers assigned as students or instructors. They knew that it was not uncommon, for instance, for a colonel of the regular British army to be sent to take a course where the latest developments of the art of war were being taught, more often than not by their juniors. A great many new developments had resulted from the war and the officers of the Corps who had had extensive war experience appeared to be the best qualified to teach the new tactics. Other officers learned the new developments in army schools where the lessons learned from the war were being taught as soon as they could be formulated. Our schools by means of these two classes of instructors were within a few years offering courses of instruction covering a greater part of the new developments growing out of the war. The desire to learn the latest tactics gradually grew as more and more officers took the Field Officers' Course. Many of those who were at first resentful of having to go to the schools later became their strongest supporters.

During the summer of 1920 the two schools at Quantico were consolidated into the Marine Officers' School with Colonel John C. Beaumont in charge and set about making plans for conducting a course for field officers and one for company officers. The departments of tactics, topography, law, administration and engineering were established. A field officers' class composed of officers from senior captains to lieutenant-colonels was assembled on October 1 and commenced a nine-months course closely paralleling the course which had been worked out at Leavenworth as a result of the experiences in the World War. The tactics department was composed of some officers who had had wide experience in the World War and by two officers who had just completed a course of instruction at Leavenworth. By these means the tactical lessons learned in the World War began to be passed on to the officers of the Marine Corps. The school staff also prepared a course of instruction for company officers which was planned to be opened at about the same time. Due, however, to the results of a selection board for classifying all temporary officers and assigning them positions as regular officers in the Marine Corps having been set aside and a new board, commonly called the "Neville Board" having begun the difficult task all over again which they did not complete in time to permit the offering of regular commissions to temporary officers until March, 1921, the opening of the Company Officers' School had thus been greatly delayed. The refusal to accept the offered commissions in a number of cases resulted in a considerable number of vacancies in the grade of captains and first lieutenants. These vacancies could not be filled according to law until the required examinations had been taken. The commissions offered as a result of the report of the "Neville Board" were without examination. The school then organized a special course of instruction designed primarily to qualify first and second lieutenants who had made their numbers to fill these vacancies. A special class of those officers was assembled on May 1 of that year and given an intensive course of instruction. This class finished on July 5 of the same year and a regular company officers' class was organized consisting of twenty-nine company officers who finished the complete revised course. Twenty-one of the class graduated on June 15, 1922. The revised course of instruction except for tactics and the technique of weapons, both of which had been greatly modified by the war, continued along about the same line as that offered in the Marine Officers' School prior to the war. Newer developments were taught by lectures, conferences, practical exercises, demonstrations and problems. A few troops were available for use of the school but not of sufficient number to give larger than platoon demonstrations.

A student officers' Basic course was inaugurated during that school year and a class of seventeen newly appointed second lieutenants and eleven Marine gunners took the course; twenty-one of the class received diplomas upon completing the course the following spring. This was the reestablishment of the school for newly appointed officers which had been discontinued since the outbreak of the war. The course of study was designed primarily to fit the young officers for the duties of a lieutenant in the Marine Corps. With the founding of this class a system of basic training was set up which has since been continued for all newly appointed groups of second lieutenants in the Marine Corps.

The experiences in the operation of Marine Officers' Schools thus far since the World War had been in the face of many difficulties. The war had thrown into discard a great deal of our supposed knowledge of tactics and the technique of the use of infantry weapons and it was necessary for the schools to rebuild a curriculum in these subjects based upon the experience of the World War as rapidly as the lessons therefrom could be reduced to sufficiently well defined principles to be considered a part of military knowledge. Another difficulty was experienced by having a large number of officers added to the regular list who were well along in years for the company officers' grades, many of whom had not had a sufficiently liberal education to handle the courses of study that should be expected of officers. Another difficulty was encountered by the fact that many of the older officers of the Corps did not particularly relish being sent back to school after ten or twenty years of experience as officers. This latter tendency was overcome in time as the course of instruction was improved while time has tended to rectify the former mentioned conditions.

By the Fall of 1922 the Marine Officers' School at Quantico, under the command of Colonel B. H. Fuller, was pretty well on its feet and operating with three complete courses of study—field officers' course, company officers' course and the basic course. The Field Officers' Class, beginning that year consisted of twenty-one officers from the grade of captain to lieutenant-colonel. The Company Officers' class consisted of forty officers while the Basic Class was composed of twenty-two newly-commissioned second lieutenants. The Basic Class finished its class of instruction in February, 1923, while the other two classes completed the course the following June. The course of instruction during that school year was considerably enriched by the efforts of several additional

graduates from the Leavenworth school and officers who had finished the course at the Infantry School at Fort Benning, some of whom had joined the staff of instructors. Considerable effort was made toward the development of definite ideas in the study of small wars and a tendency set in to return to a more naval point of view. The influence so far since the World War, as far as tactics were concerned, had leaned strongly towards the army point of view as a result of our experiences with the Second Division and by the fact that the necessary textbooks and conference papers had been turned out by the army and were used largely in the study of tactics in the Marine Corps Schools. A notable contribution to Marine Corps knowledge was made during the year by Major S. M. Harrington as the result of his studies in the conduct and tactics of small wars.

The school continued the following year with the same organization and along the same lines. Twenty officers took the Field Officers' Course, thirty-six the Company Officers' Course and forty the Basic Officers' Course. The result of this year's work at the school was more encouraging as the course of instruction had been gradually improved upon and the students were beginning to show more interest. The Basic School was moved to Philadelphia at the close of this year's school and gave a course to twenty-eight newly appointed second lieutenants between August 4 and December 3, 1924. It has continued to function at that place for all of the newly appointed officers who have been sent there for a basic course of instruction prior to being ordered to regular duty. The attendance at the Basic School since it was moved to Philadelphia and the length of each course is indicated by the following table:

Year	*Length of course*	*Officers attending*
1924	4 months	28
1925	4 months	26
1925	4 months	21
1926	4½ months	21
1926-27	5 months	29
1927	5 months	18
1927	1 month*	10
1927	3 months	3
1927-28	5 months	21
1928	4 to 5 months	27
1928-29	8 months	15
1929-30	9 months	53
1930-31	9 months	40
1931-32	10 months	35
1932-33	10 months	30
1933-34	11 months	21
1934-35	9 months	30
1935	2 months	29
1935-36	7 months	94

*Detached for expeditionary duty.

The remainder of the Marine Officers' School system continued to function at Quantico and by the opening of the school year 1924-25 the staff of instructors consisted of five officers on administrative duty, four in the department of tactics, two in the department of law and three in the department of topography. The Field Officers' Class for that year consisted of twenty-two officers of the usual grades while the Company Officers' Class consisted of fifty-four lieutenants and captains. The school opened on October 6 and proceeded with the regular course until February 10, 1925. Meanwhile it had become known that the joint Army and Navy maneuvers which had been scheduled to take place in the spring of 1925 would necessitate a call upon the school for most of its students as well as instructing staff. On the last mentioned date all officers attached to the school with a nucleus of enlisted men from Quantico were formed into groups representing the headquarters units of a large expeditionary force. During the following weeks these groups carried on communication training and prepared the necessary plans and orders for the several units in the forthcoming maneuvers. The personnel of the school returned from the maneuvers on May 25 and a modified schedule for both of the classes was resumed and that school year was finished on July 31. The course of instruction for both of these classes was still largely based on text-books, pamphlets and mimeographed lesson sheets prepared by the army schools at Benning and Fort Leavenworth. Topography was still taught even to the Field Officers' Class in its more or less elementary form, irrespective of the previous experience and training of a number of the students. Colonel Robert H. Dunlap assumed command of the school on September 28, 1924.

During the following school year twenty officers took the Field Officers' Course, while fifty-two attended the Company Officers' Course. The course of study for the latter class was still somewhat basic in its scope and consisted largely of the technique of weapons and other basic knowledge which is now mostly covered at the Basic School and the study of tactics of units including the battalion. The Field Officers' Class continued to make its main efforts the study of tactics based largely on the teaching of the army schools.

In preparation for the school year 1926-27 the instructing and school staff was considerably augmented by having five officers for administrative purposes, eighteen in the Department of Tactics (including one naval officer), three for Topography and two for Law. Some of the additional officers attached to the Tactics Department, however, were used by the Correspondence School which by that time was assuming a position of considerable importance in the educational system of the Marine Corps. In preparation for the courses in tactics, more effort was made than theretofore to develop the principles of military science especially applicable to operations of the Marine Corps in conjunction with the fleet, and enlarging upon the amount of instruction in the conduct of small wars. With the added staff time was available for considerably more research than the school had been able to do previously. The Field Officers' Course in tactics, however, still rather closely paralleled the course in that subject at the Command and General Staff School at Fort Leavenworth. The Company Officers' Course in tactics and technique was gradually being made more advanced and thorough with still a decided emphasis on military technique. The Company Officers' Class was also beginning to receive some instruction in overseas operations as well as in the conduct of small wars. The Field Officers' Class for that year consisted of eighteen officers, scattered through the usual grades, including one army officer while the Company Officers' Class consisted of forty-two lieutenants and captains. By this time the Correspondence School which had had its humble beginning a few years before was beginning to attract more interest and enrollments had considerably increased

During the school year of 1927-28 the instruction staff was again slightly increased, allowing an additional offi-

cer for tactical instruction in the Field Officers' School and increasing the staff of the Correspondence School to six. The course of instruction for this year was quite similar to that of the previous year with some growth in the subject matter of overseas operations and small wars. Only fourteen officers could be made available for the Field Officers' Class and twenty-two for the Company Officers' Class. The sending of a large expeditionary force to Nicaragua necessitated the detachment early in January, 1928, of a number of the instruction staff as well as part of the Company Officers' class. Shortly afterwards the Company Officers' class was depleted to less than half of its original number by further detachments to expeditionary duty and by March 19 all of the class except five were gone and the course for that class was discontinued. The officers for an entire battalion were supplied from the staff and students of the school for duty in Nicaragua where they were able to immediately apply the principles they had learned in the school. The Field Officers' Class was able to continue under the guidance of the greatly depleted school staff and finished the course on June 16, 1928. In the opinion of Colonel J. C. Breckinridge as expressed in his annual report the school had been very materially crippled by having such a small instruction staff which had to carry on the Field Officers' Course as well as the many Correspondence Courses which by that time were being sent out. But of course this had only been just another one of the ups and downs that the Marine Corps Schools had suffered by being broken into as a result of large expeditions. The school was not able to return to normal during the maintenance of a large expeditionary force in Nicaragua in addition to considerable numbers of other foreign duties.

During the school year that followed the schools carried on with a total staff which had been reduced from twenty-seven to eighteen by the Nicaraguan Expedition and undertook to have only a Field's Officers' Class and to continue the operation of the Correspondence School. Only fifteen officers attended the school including one army and one navy officer. The session opened on September 13, 1928, and the Field Officers' Class graduated fourteen officers on June 22 of the following year. Expeditionary duty not only completely stopped the running of the Company Officers' Course but greatly depleted the enrollments in the Correspondence School. Short courses of instruction were given by the schools to reserve officers during their period of active duty. These courses for reserve officers were mostly basic courses and were offered in two periods with a total of forty-eight officers attending.

By the next school year the demand for officers on expeditionary duty had somewhat abated. More officers were made available for the instructing staff by utilizing eleven instructors to teach the senior class and eight to instruct the junior class as the classes were then designated. Seventeen officers, including four naval officers, were enrolled in the senior course while the same number took the junior course. The entire senior class and fifteen of the junior class were graduated on June 20, 1930. The course of instruction for that year had undergone considerable change with more advance being made than ever before in adding to the instruction in overseas operations. The course for company officers was especially enriched in this connection. A gradual shift from the army point of view to more of a naval point of view was clearly evident. Another obvious advance was made in that the school had begun to assume more knowledge on the part of its students. Previous to this time a great many officers had been required to pursue courses of study with which they were thoroughly familiar because other members of the class had to be taught these elementary subjects. The better instructed were thus held back when they might have been studying entirely new subject matter. Both the senior and junior courses were thus beginning to assume more of the aspects of a graduate course. The curriculum for the senior officers contained a great deal of instruction and problems in overseas operations and went into the subject of advanced bases and landings on hostile shores in considerable detail, emphasizing especially the coordination of land and naval forces. The amount of time devoted to subjects other than tactics was considerably reduced. The teachings of the army schools applying to logistics were still closely followed while the other subject matter of tactics showed more and more tendency towards original thought and toward the naval point of view. The Correspondence School was beginning to show some signs of recovering in its enrollments but expeditionary duty still retarded its advance.

The course of study which was begun September 5, 1930, found the school with a still greater augmented faculty with thirteen officers available for the instruction of the field officers and ten for the company officers. The senior class of this year was composed of fourteen Marine officers, one army and one navy officer. Twenty-two company officers took the junior course. An innovation was introduced this year by sending the company officers for a short course of instruction in ordnance and gunnery at the Naval Academy, while the field officers and some of the staff of instructors attended the divisional maneuvers at Fort Benning, Ga. The courses of study were concluded on June 19, 1931. The Correspondence School was still plugging along with a depleted staff but with a growing interest on the part of Marine Corps Reservists and the enrollment by regular Marine Corps personnel still running rather low. The Department of Reproduction by this time had been developed into a considerable plant and was turning out high class work in all forms for the use of the school.

The feeling that the whole system of education for the Marine officers should be more closely integrated began to express itself during the spring of 1931. Arrangements were made to insure the uniformity of instruction in the basic schools with that in the Marine Corps Schools at Quantico. A board was appointed and convened at Quantico for an extensive study of the curriculum of the Marine Corps Schools. It recommended a number of improvements which were carried into operation which greatly increased the scope of the study in the schools and made the courses more applicable to the mission of the Marine Corps both ashore and afloat with still greater emphasis being placed on overseas operations and small wars. By this time the school staff was beginning to be an experimental board for materiel for the use in landing force operations. Extensive experiments were carried on at Quantico with boats and other equipment. The school was again getting back into its regular stride after several years of interruption by expeditionary duty and was making notable progress in the scope of its fields of study and was effecting a larger usefulness and creating a more universal interest in the whole Marine Corps. The tendency was still decidedly drifting toward a naval point of view.

The course of instruction during the year 1931-32 was very similar to and run in very much the same manner

as during the school year 1930-31. The classes and officers of the staff continued at about the same number as the year before.

A complete course of instruction considerably revised from previous schedules had been worked out for the 1932-33 school year with considerable added emphasis to landing force operations and on the use of Marine Corps organization and equipment. Based on this schedule some of the instructors had worked out the details of part of their courses for the following year. A newly appointed director for the senior class arrived at the school with quite different ideas, not only in the manner of running the school, and subject matter to be taught but also in the basic doctrine on which the whole school should rest. This officer made a very strong case for complete revolutionary changes in the operation of the whole system of Marine Corps Schools. His recommendations proved to be a bomb thrown into the midst of a group which already considered itself quite progressive. His advanced ideas brought the Marine Corps School as well as Headquarters Marine Corps face to face with the most basic ideas on which the education of officers in the Marine Corps should rest. It also brought all concerned face to face with the necessity of reconstructing more or less completely the subject of military art as it applied specifically to the mission of the Marine Corps. Many simple steps had been made in the past in the usual slow evolutionary manner towards adding bit by bit to our store of military knowledge. To be suddenly confronted by a complete revolutionary change presented one of the most difficult intellectual problems the Marine Corps had ever faced.

It must be admitted that there are no other human endeavors more difficult than that of the advancement of learning and epistomolegy—the critical investigation of the nature, grounds, limits, criteria or validity of human knowledge. These subjects have been grappled with by the leading thinkers of all times and even among them there is a lack of uniformity of agreement as to what is knowledge and how it may be advanced. Therefore it is apparent that no one should ever be too sure about what he knows or that he has succeeded in adding new truths to the field of knowledge. For several hundred years in the realm of the physical sciences the over-sure scientist has been prone to say "it was formerly thought but we now know"—not realizing that his fore-runners had repeated this same dictum for generation after generation. Our theories of military knowledge have always been in a more or less state of flux but it is evident that throwing away is rather destructive at least for the time being if new theories are not immediately available to take the place of those discarded. It is one thing to cast aside ideas as being mere rubbish but vastly more difficult to lay down sound principles which will take their places.

In our attempt to develop the knowledge of military science—or art—we have often not allowed the extreme freedom of critical examination of our theories that is allowed in the scientific world. When a supposed new addition to any branch of scientific knowledge is offered to the scientific world it is immediately subjected to the most scathing criticism and examination, especially by those who find it at variance with their pet theories. If the new supposed scientific principle survives the attacks made upon it for any considerable length of time it may then pass into the realm of scientific knowledge. In our profession, however, this freedom of critical examination is considerably restricted, due to obvious reasons that grow out of our ideas of discipline and subordination. Real progress in our civilization has usually been made by the process of evolution and not so much by sporadic revolution. Revolutions are too prone to precipitate a state of chaos from which it takes considerable time to extricate ourselves. In setting ourselves against revolutionary changes, however, we must avoid the spirit of smug complacency which creates a bad atmosphere for real progressive thought and the development of our military knowledge. If we accept the old teachings as absolutely true we have then slipped into the habits of scholasticism which accepted without question what the masters taught.

The revolutionary changes suggested in our schools mentioned above together with other very progressive ideas were considerably modified before they were put into operation but nevertheless the most far-reaching changes ever made at one time in the education of Marine officers resulted from those new ideas. Some of the most basic changes made in the running of the schools prior to the beginning of the following classes were:

(a) The abolition of the old marking system.

(b) Allowing the students more time for individual study and research by eliminating about 25 per cent of the time preempted by the school staff.

(c) A more progressive schedule was developed during the course of the year.

(d) Instruction periods for both classes in common were introduced to save the time of the instructors.

(e) School staff and the students used a considerable portion of their time in the development of text-books for the school.

(f) A great deal of time was devoted to the laying out of more progressive courses of study for the following classes.

(g) A greatly increased allowance of time was made for the study of landing force operations, intervention expeditions and the coordination of naval gunfire with land operations.

(h) Problems to be solved were as far as possible fitted to Marine Corps units and situations.

(i) A study of military campaigns, especially those illustrating landing operations was emphasized.

(j) Closer coordination with the Navy War College was initiated and its teachings more closely followed.

These changes created a great deal of additional work and a certain amount of confusion which, of course, could not be obviated under the circumstances. The tasks which the school had undertaken under the new plan proved quite difficult and not as much progress was made in the preparation of text-books as had been hoped for by the advocates of the plan. Great changes resulted however, and with succeeding school years it is becoming more probable that the change was made in the right direction. With the advent of the Fleet Marine Force the advances made have proved to be especially timely. A growing coordination between the schools and that part of the Marine Corps was soon plainly evident. As a result of the first term of the "experimental university" nineteen Marine officers received certificates for having completed the senior course while twenty-nine officers were given certificates for completing the junior course.

The process of gradually adjusting ourselves to the

new conditions and the new basic ideas continued to show progress throughout the following school year. By that time the Fleet Marine Force was one of the main objectives of the Corps and the schools devoted their principal attention to coordinating their teachings with the needs of the F.M.F. Tactics and technique were especially approached from the point of view of that organization. The school staff was again enlarged to permit more time for the preparation of text-books and to carry on other research. The preparation for the second class under the revised system had been begun early in the year in order to be sure of having as many as possible of the new problems worked out in advance. A class of twenty officers completed the senior course, twenty-five the junior course and ten the Base Defense Weapons Course. That course had been added further to meet the needs of the Fleet Marine Force and for training of officers in the handling of types of technical equipment which had not been theretofore part of the regular equipment of the Corps.

The present course of instruction shows that the new ideas are beginning to be worked out in considerable detail and the school has apparently gotten back to normalcy but still no doubt has many problems to be solved. The classes as now designated are the senior class which has fifteen advanced students, and the junior class attended by eighteen company officers. In conformity with the previously announced desires of the Commandant of the School a group of seven naval officers are in attendance, in addition to one on the school staff. The present course of instruction for both classes shows a very close integration between the teachings of the school and the organization, equipment and the present anticipated missions of the Marine Corps. The senior class devotes practically all of its time to the various phases of tactics and technique using the prescribed Marine Corps equipment and weapons and to the mission of supporting the Navy.

The attendance of officers at various Army, Navy and other schools in the United States since the World War is too numerous to be mentioned in this account. The following table will indicate the extent to which this part of the education of Marine officers has been carried on:

Besides the special aviation training noted on the above table five officers have completed a full three-year course of study at the post graduate school of the Naval Academy followed by one year of graduate work in either the California Institute of Technology or Harvard or Michigan University in the study of advanced aviation theory during the past five years. Several other officers have completed extensive post graduate courses in aero-dynamics. Attendance at law schools shown in the table are those attending while attached to the Office of the Judge Advocate General only.

In addition to the courses of instruction given by the schools of the American service a number of Marine officers have been sent abroad for various courses of study. The detail of Marine officers as language students at the legations in Peking, China, has been continued intermittently since 1911. Japanese language students attached to the legation at Tokyo, Japan have pursued the study of that language also since 1911. The practice of sending students to the Ecole de Guerre at Paris, France, was initiated in 1925 and has been continued ever since with one or two officers in attendance taking the two-year course of instruction at that advanced school of tactics and strategy. In October, 1935, a first lieutenant was detailed to take the course at the Ecole d'Application d'Artillerie at Fontainbleau, France. There seems to be no limit to the ambitions of our officers in their search for military knowledge.

The officers who have been at the head of our system of higher education from the beginning of the first regular school in 1891 to the present are shown in the following table. Only those officers who were at the head of the school for several months are listed thereon; several others were in temporary command of the schools at various times during that period. The pictures of these officers who have so largely contributed to the growth and dissemination of military knowledge in our Corps during the past forty-five years will be found elsewhere in this issue of the MARINE CORPS GAZETTE.

Name of School	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
Army Air Corps Tactical								3	3	3	2	3	3	1	1	3	3	3
Army Air Corps Technical					1	2	1	1	2	2				2			1	1
Army Chemical Warfare			7	1	14	6	28	3	1	2		1		3	3	3	10	
Army Coast Artillery									1							4	4	1
Army Field Artillery								3	2	4	2	2	3	3	3	3	3	5
Army Industrial College												1	1	3	2	2	2	2
Army Infantry School		1	3	4	4	4	4	4	5	3	3	2	4	5	5	5	5	6
Army Motor Transport		2	5	2	2	3	4	4		3	3	3	3	3	3	1	1	1
Army Signal School								3	3	3	3	3	2	3	3	3	4	2
Army Tank School								2										
Army War College	2	1	2	2	2	2	3	3	3	3	3	3	3	3	4	2	2	2
Army Cavalry School													1	1		1		
Command and General Staff	2	2	3	4	2	2	4	3	3	4	2	4	5	6	6	6	6	
Laws Schools	1	1	1	1	2	6	5	5	5	2	2	2	3	3	2	1	3	3
Naval Air Station, Pensacola, Fla.	22	16	18	20	11	11	11	29	16	24	36	47	12	12	11	11	18	
Naval War College	4	4	2	4	3	5	6	6	5	5	3	3	5	4	5	5	7	7

Officers-in-Charge and Commandants, Marine Corps Schools

Captain D. Pratt Mannix, September, 1891-January, 1894
Captain Paul St. C. Murphy, March, 1894-August, 1896
Captain Francis H. Harrington, Sept., 1896-April, 1898
Major John H. Russell, October, 1900-January, 1901, also May, 1904-August, 1906
Major Charles A. Doyen, January, 1903-February, 1904
Major Franklin J. Moses, September, 1906-January, 1907
Lt.-Colonel Eli K. Cole, January, 1909-April, 1911
Captain Richard M. Cutts, September, 1911-May, 1912
Captain George Van Orden, November, 1912-Dec., 1914
Major Harold C. Snyder, January, 1915-June, 1917
Major Jesse L. Dyer, March, 1919-July, 1920
Lt.-Colonel John C. Beaumont, Sept., 1920-June, 1922
Colonel Ben H. Fuller, July, 1922-January, 1924
Colonel Charles S. Hill, January, 1924-February, 1924
Lt.-Col. Raymond B. Sullivan, March, 1924-Sept., 1924
Colonel Robert H. Dunlap, October, 1924-January, 1928
Colonel James C. Breckinridge, July, 1928- Dec., 1929, also April, 1932-December, 1934
Brig. General Randolph C. Berkeley, August, 1930-November, 1931
Brig. General Thomas Holcomb, Jan., 1935-Present time

The extent to which education of Marine officers in addition to the instruction given at the Basic Schools in pre-war schools and in addition to the schools during their experimental stage is indicated, of course, under "special courses or qualifications" after each officer's name in the annual Navy Register. The school, it is believed, has never felt that it is accomplishing all that it is capable of doing and feels that educated officers would be more numerous in the Marine Corps if it were given more opportunity to put more students through its prescribed courses.

A survey of the Navy Register indicates that there are still many officers who have not taken courses in the service schools designed to prepare them specifically for all the duties of their present and next anticipated grades. It would seem that during the period of the first fifteen or twenty years of his official career each officer could have greatly profited by devoting two or more years to formal military study in addition to the basic knowledge which was imparted to him immediately after he was commissioned. With a more rapid promotion now in vogue in our Corps it will be still more difficult to put each officer through the number of courses suggested above during his tour of service in the grades below lieutenant colonel. By a comparison of the present educational accomplishments with those of the past it is evident that tremendous strides have been made. Such results would have been undreamed of in pre-war times.

If we apply the homely adage that "the proof of the pudding is in the eating thereof" to our educational system and attempt to test it by the results in war, which after all is the only real test of the military organization, the application becomes extremely difficult. There is little doubt, however, but that the formal education of officers in military science prior to the World War substantially helped those officers during the crucial test of their ability on the battlefield. With regard to our extensive and far-flung operations during military interventions it is more difficult to check the results of our system than it was in the late war. During the early days of this stage of our history most of the officers had had no formal training designed to qualify them for this particular duty. The process of supplying such a type of instruction had been exceedingly slow until the last few years when tremendous strides began to be made. Without formal training, of course, expeditions were so frequent that a vast deal of accumulated experience without formal education was accumulated by the Marine Corps and possibly served the purpose as well as formal education.

The question as to whether or not the basic doctrine on which the schools are now based is correct can only be left to the test of time and experience. Whether or not the Corps will continue to have its mission of the past thirty years depends, of course, upon the national foreign policy. The present administration's insistence of non-intervention — the good neighbor policy — has stopped, for the time being, at least, expeditions to Spanish-American countries. Whether or not this policy will continue seems to depend upon the stability of the governments of those countries and upon the influence of capitalism which in the past has dominated the policy in regard to those countries and helped to cause most of our interventions. Our past history shows that in all cases when the Marine Corps was ordered to duty with the Army it was at a time when the regular army was faced with a situation with which it could not alone cope and was urgently in need of a trained body of regular troops to come to its assistance. The reader will do well to bear in mind the historic incidents, when the Marines were called to the assistance of Washington's Army in the Battle of Trenton, when they helped in the futile defence of our capital during the War of 1812, when they went to the urgent assistance of the regular Army in the Indian Wars of 1836, when they reinforced Scott's stranded army in Mexico in 1847, when they were impressed into the Federal Army during the Battle of Bull Run as well as during other engagements in the Civil War, when they rendered invaluable assistance to the Army during the Philippine Insurrection, when they participated with the Army in China during the Boxer Rebellion, when they formed the advance units of the Cuban Army of Pacification, when upon the urgent request of the Allies, they were hurried off to France to become a part of a regular Army division and when, on many other occasions, they participated with the Army during great calamities and domestic disturbances. Whether or not such conditions will continue to present themselves only the future can determine. Will it refute the idea that now dominates the Corps that we will not, at least within the next few years, be called upon to join our forces in a major effort with the Army?

The psychological and moral effect of carrying on and attending formal courses of instruction and associating with other officers who were assigned to the same tasks can not, I believe, be over-emphasized. There is an idea quite prevalent in the intellectual classes of this country which I believe cannot entirely be refuted—that in periods of long peace military organizations tend to grow stale and dry rot. We have been relieved from that process of degeneration to a large extent by frequent expeditionary duty, but work at schools either as an instructor or as a student is one of the best antidotes in my opinion for this condition. With the present rapid growth in the complicated structure of our civilization and the growing more and more complicated of the arts of tactics and strategy, it is apparent that we must think and study more about these matters or we cannot keep pace with such rapid changes. "Practical" or rather uneducated soldiering would appear to have little place in future wars.

THE SEMI-AUTOMATIC RIFLEMAN

(*Continued from page 22*)

statement was made that the battle of Bunker (Breed's) Hill had a great effect on world war tactics. I submit that we should study the technique of Morgan's Riflemen, of the Texans who fought Santa Anna, of Indian fighters such as Daniel Boone, because our semi-automatic rifleman will be of their type. Let us be warned by Braddock's defeat. Moreover, let us consider the technique of the Boers. Let us remember that rifles are easy to manufacture compared to elaborate artillery, airplanes, bombs, etc. The man on his feet solves the problem in the last analysis. He can go anywhere; tanks and armored cars can not.

Ours is an age of machines. You see the influences all around you. The semi-automatic rifle has been terribly slow to develop because it had to be extremely simple in its construction. Very soon you will be equipped with such an arm. I hope it will be the "ideal mechanism."

This rifle will carry a bayonet and will be suitable for the grenade discharger. If like the writer, you are queer in that you see beauty in a weapon, then you will see beauty in it. Do not regard it as a club or as a bayonet handle, for it is the incarnation of "fire-power." Moreover, do not consider it as an implement for the manual of arms.

I well recall an occasion when a wild-eyed inventor showed his pride and joy to an exceedingly cynical officer of the old school. The latter whirled the piece through the air in the manner of one whose soul is stirred only on the parade ground at inspection arms. Unfortunately his hawk-like eye noticed the protruding magazine below the receiver. Thereupon he told the inventor his gun would not do at all because its adoption would necessitate modifications of the manual of arms. I believe that officer was buried with full military honors. If he was not, I can only conclude that it was due to the mal-function of the outraged creator's firing model.

PACK HOWITZER BATTERY IN LANDING ATTACK

(*Continued from page 14*)

3. Remainder of "one day of fire," should begin to arrive 30 minutes after battery lands, and all be ashore by two hours after the battery lands.
4. Tractors, heavy trailers and any additional ammunition ashore not later than the first night after landing.

COMMENTS ON STEPS TO BE TAKEN IN A LANDING ATTACK

1. (a) In the preliminary steps, study the map, mosaic, and air photos carefully and in detail. Learn from them the enemy defensive positions, and possible

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artillery targets. Consult with the Commanding Officer, suggest missions. Select battery position which is very easy with the Howitzer, and an alternate position if at all in doubt as to whether battery can occupy first position. The requirement for the battery position is that it be one from which the battery can accomplish its mission. Usually it should be able to cover the entire area in the zone of action of the infantry, to which it is attached from the artillery control line, and preferably less, to the limit of its range without any dead spaces. The selection of an O.P. may be somewhat more difficult, particularly if there is no map available. However, such a selection within possibly 100 yards can be made (without a Map) by the skillful use of a mosaic supplemented by other air photos, verticals, slants and horizontals.

(b) This is done by comparing these various photos. The horizontal will show the crest line, the vertical will show in detail the area shown on the mosaic, and slants will show the various crest lines. These two, the slants and horizontals, considered together will give a good idea of the elevations of the terrain, particularly the critical points of the elevations (O.P.'s). From these photos it is possible to compute the approximate height of these critical points.

2. Plan sufficient scheduled fires to keep the battery busy for the first five to fifteen minutes the battery is in position in order to permit early opening of fire and to allow for the completion of the communication installation. The exact number of concentrations to be fired on schedule depends on the missions assigned, on the proximity of battery position to the beach, and the length of communication lines to be put in. No more scheduled fires, due to the relatively large expenditure of ammunition, should be undertaken than sufficient to keep the battery busy until the communications have been established, unless the data is extremely accurate and there is no doubt of the relative importance of the missions assigned for such scheduled fires. Ordinarily, one to five should be sufficient. It should be possible to select sufficient critical small areas in the enemy defensive system by positive identification for these missions.

3. (a) In addition to the above missions to be fired on schedule, select and designate concentrations by overlay for every probable enemy target. In fact, almost the entire enemy area beyond the artillery control line to the force objective, and some beyond, should be covered by concentrations.

(b) Compute data for all of these concentrations, for both battery positions if an alternate has been selected, with all corrections applied, including the corrections for the wind and temperature of the powder. The latter two to be applied at the last minute. These two factors, wind and temperature of the powder, have a greater effect on the Pack Howitzer trajectory than any of the other factors, and must be made even if they have to be estimated.

(c) The following thumb rule will give fair results in applying these corrections at the last minute:

(1) Normal powder temperature is 70 degrees F.

(2) Changes from that temperature change the range 2 yards per thousand for each degree of change, above 70 degrees it increases the range and below it decreases the range.

(3) The range wind changes the range 1 yard per thousand for each mile per hour.

(4) The cross wind changes the deflection 1 mil per thousand for each ten miles per hour.

(d) The computations of these concentrations can be made sufficiently accurate to place the fire within 50 yards. Then allowing in its zone and sweeping fire, 50 yards all around, will include the target even with a mosaic and estimated data. The mosaics made by aircraft at the present time are approaching the accuracy of maps, and if aircraft reports them as accurate, such may be accepted as correct.

4. In preparing embarkation schedules arrange to take all of the ammunition the excess boat spaces will permit and it must not be less than as shown above, 48 rounds.

5. Apply new declination constants to all compasses in the battery. Assuming that the declination constant of each compass is known and they should be, compute the difference between the magnetic declination of the compass for the place at which they are known to the place the landing is to be made and apply this correction in the proper direction.

6. Bore sight or check the bore sight of the Pack Howitzer. On board ship proceed as follows:

(a) Select positions for the piece and the bore sight target. These positions to be such as will permit the wheels of the piece to be on the same horizontal plane at some time during the rolling or pitch of the ship and permit the bore sight target to be erected approximately 50 yards away from the piece, and preferably on the same or slightly higher mean horizontal plane as the piece. A less distance may be satisfactory but will require more care in erecting the bore sight target as given below.

(b) Set up the bore sight target with its base parallel to the plane on which the wheels of the piece rest, and with its face perpendicular to the axis of the bore of the piece. In erecting the bore sight target an effort should be made to get it exact as given above but an error of five (5) degrees in either or both will not be excessive for distances greater than 25 yards the target is away from the piece. The greater the distance the target is away the greater the tolerance.

(c) Set up the piece at the position selected pointed at the bore sight target and prepared for action.

(d) Install the boresight in the tube of the piece and the cross hairs at the muzzle.

(e) Install the sights properly. Make sure they are secure in their proper sockets, etc.

(f) Level the cross level bubble. To do this place the gunner's quadrant set at zero on the axle of the piece and make the cross level bubble check with the level in the quadrant (trial and error).

(g) Place the tube on its part of the bore sight target by means of sighting through the bore sight in the tube past the cross hairs at the muzzle. Recheck the cross level. If not level with quadrant, make it so, as in preceding paragraph.

(h) Center the top knob of the sight, and then put the cross hairs of the sight by turning the elevation drum and the deflection knob, on its part of the bore sight target. The deflection scale and the elevation scale will then indicate how much the sights are off in bore sight. If either is more than one (1) mil off, loosen the lock nut of the micrometer of the one or both that is off and place the scale at zero, then check.

(i) Place the gunner's quadrant, set at zero or any other convenient setting which the roll or pitch of the ship will cause the bubble to cross the level point, on

its seat on the breech block of the piece. By changing the angle of site knob (trial and error) cause the angle of site bubble to cross the level point at exactly the same instant the bubble of the gunner's quadrant crosses its level point. When this occurs the reading of the angle site scale should read the same as the setting on the quadrant. Note that the horizontal of the angle of site of the sight is 300 and that of the quadrant is 0. If they differ, the angle of site (Master or elevation bubble of the sight) is off by the amount of the difference. In this case loosen the lock nut of the angle of site knob and change the scale to read the same as the setting on the gunner's quadrant, and then check.

(j) The above being done as shown the pieces will be properly bore sighted.

7. Ascertain the type of soil from the beach. If extremely soft and the Howitzers are to be moved on their wheels, rig cleats on the tires to prevent them from miring down. These cleats may be made of wood blocks 1½" x 3" x 6" with two holes ⅝" in diameter bored through the edge of the block starting at a point 1½" from each end in the center of the 1½" x 6" edge of the block. It will require about 30 blocks and a manila line 30 feet long for each wheel. To secure the blocks to the wheel, with the center of the line under the felloe of the wheel, pass the two ends through the holes in the first block, then under the felloe crossed to opposite sides, pull taut, through holes of next block, under felloe crossed over, pull taut, etc.

8. After completing the unloading of the boat, if necessary assist the boat crew with a few of the higher numbered cannoneers only to get the boat off the beach. Give them a push.

9. The Battery Commander should make every effort to give prompt and accurate fire support, and at the same time conserve his ammunition. Designate a responsible non-commissioned officer to report periodically on the status of the ammunition.

Herewith are some of the errors that have been made in landing a Pack Howitzer battery.

1. Boats carrying the various sections of a battery have landed much too far apart, necessitating moving the pieces closer together to facilitate control. However, they should not land closer than 20 yards between each two boats.

2. Boats have approached the beach too cautiously, resulting in beaching the boat further out than necessary.

3. The Howitzer was not sufficiently disassembled to land through a high surf. Recoil and cradle left together, wheels left on the axle, etc.

4. Pieces were allowed to shift their relative positions in the battery after landing due to them not being landed as anticipated. It makes no difference whether the regular number 4 piece is on the right or left of the battery, and the crews should be instructed to set them up in the order they land from right to left without regard to their regular numbers.

5. Higher numbered cannoneers after assembling their parts did not return promptly for the ammunition.

6. No automatic weapon in the bow of the boat.

7. The men did not keep down in the boats.

8. No provision made for manning the bow lines of the boat at the beach.

9. Pieces were not properly bore sighted.

10. Magnetic compasses were allowed to become demagnetized by stowing them aboard ship too close to metal. Needle should be at least two (2) feet away from all magnetic metal. Do not stow the steel straight edge in the case with the aiming circle.

11. Aiming Circle not set up with proper data on it at battery position.

Take the Pack Howitzer with us, and use it. It is a powerful weapon.

NOTE: The opinions or assertions contained in this article are the private ones of the writer, and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

THE "MINUTE MEN" OF CANADA

(*Continued from page* 11)

Scotia, New Brunswick, Quebec and British Columbia.

In this outfit, there is one provisional superintendent; four skipper lieutenants; five chief skippers; 15 skippers; two cadets; five chief engineers; seven warrant engineers; 17 chief petty officers; 12 petty officers; two leading seamen; 40 able seamen; 24 ordinary seamen; 10 leading telegraphists; two telegraphists; various ratings of enginemen, cook stewards, ship's cooks and mess boys.

The Royal Canadian Mounted Police has a grand total—including the Marine Section—of 2,573 souls. On land and water they represent the law. Because the organization is so widely scattered, there must, of necessity,

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be a high standard of discipline. This is maintained and General MacBrien was able to write in his recent annual report:

"On the whole the conduct of members of the force has left little to be desired, and while a few serious cases of improper conduct and insubordination have occurred, the number has been comparatively small for the strength of the force."

Honors and awards are given in worthy cases. The Order of St. John of Jerusalem has been bestowed upon outstanding members. Sergeant Major Frederick Anderton has been appointed a member of the Most Excellent Order of the British Empire for distinguished service in the Arctic, Sub-Arctic and Northern Canada. The King has instituted a medal, styled "The Royal Canadian Mounted Police Long Service Medal" for those who have earned this distinction. Posthumous awards are given to members of the Force, who have rendered conspicuous service and have died.

Recently, the scope of duties of the Force has been enlarged to embrace Alberta, Manitoba, New Brunswick, Nova Scotia and Prince Edward Island. This arrangement is patterned after that made with Saskatchewan, when the Provincial Forces were disbanded.

Much new work in coastal waters, as well as on land, has fallen to the lot of the Mounted, as the "R.C.M.P." have assumed the duties of the Preventive Service for the Customs Authorities.

The alert, picturesque Force of today had its beginnings in the vigilant men who personified the Law to the rough frontiersmen, the Indians, the bootleggers and the defiers of law generally, nearly three quarters of a century ago.

Today, the organization is officially termed the Royal Canadian Mounted Police. But song and story and romance know it better by its older title of Royal Northwest Mounted Police. Upon it, the Dominion of Canada's Government relies for the enforcement of the Federal statutes. The outfit is at the service of the Provincial Governments to aid in preserving law and order. This is due to special arrangements between the Provincial authorities and the Dominion.

In their hey-day, the Indian tribes of the western country were all-powerful. Prosperity shone upon them. Into this setting came the liquor-sellers, who demoralized many of the Indians. To complicate the situation, further, jealous tribes engaged in warfare with their neighbors. This unsettled state of affairs discouraged white settlers and kept the country in a backward state. The Government realized that something must be done—and done forcibly. The Northwest Mounted Police was the answer.

The constabulary was set up in 1873, Col. George French, later Major General Sir George French, being its first Commissioner.

Then came the historic march across the western plains and mountains. The untried Force set out to bring civilization—and law and order to the restless West. In the beginning, the organization was but 300 in number. But it was a military job and like true soldiers the "Mounted" carried out its mission.

Marching across the lawless country, they signalized to Indian and white alike that they were the symbol of Government and that the old order was passing. The primeval law of "tooth and claw" gave way to the Courts of Britain and her Colony.

All across the Territories, in 1874, this year-old Force marched—all the way from the Red River to the Rocky Mountains—a stretch of more than 2,000 miles, through hitherto-unknown lands, past hostile tribes and whites that were little better. With military precision it was carried out.

The Indians were impressed. Here was the embodiment, in this rugged country, of the Queen Empress Victoria, back in London, at Windsor Castle; of the Government at Ottawa and of law and order. The might of the Mounted caused a series of Treaties to be signed. Thus was the Government able to extend its jurisdiction to the hinterland of Canada. In the footsteps of the Mounted came pioneers—and new problems.

The Sioux Indians, following the defeat of General Custer, had fled, before the power of the United States Government, into the Northwest Territories of Canada. This created a ticklish job for the Mounted. But during the span 1876 to 1881, the Force distinguished itself as pacifiers of the turbulent Red Men. The control of the Government of Canada was extended over these warlike peoples, through the spearhead of the Northwest Mounted Police.

Anticipating new problems as they developed, the resourceful "Mounties"—official jacks of all trades—coped with thorny jobs and grabbed the serpents by the throats.

The erstwhile powerful Indians were reduced to straitened circumstances and their savage prosperity waned, when the buffalo disappeared from the plains. Warfare against the whites loomed, to recoup their fortunes. But the Mounted men were on hand to ameliorate conditions and avert catastrophe. Strength and justice were the Indians' friend and they were taught to conserve their resources and provide a means of livelihood.

Construction of the Canadian Pacific Railroad created a fresh crop of troubles for the Mounted. Into the prairies swarmed thousands of rough laborers, unkempt, with little respect for law, but a wholesome fear of the Indians, to whom they were not accustomed. Openly they disliked the redskins. Here, again, the work of the

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Mounted proved its worth, for they stepped into the breach and preserved the peace.

Save for the brief Riel Rebellion of 1885, good order prevailed—thanks to the efficiency of the red-coated representatives of the Law. Transformation came in the western country, the rail splitters and the track layers gave way to the ranchers and farmers. On the prairies of yesteryear, cities grew. But the Mounted was able to breast this swift-running tide of changing events—versatile and competent.

In the rapidly-opening-up country, tenderfeet found that the law had preceded them. A "strong, efficient and incorruptible administration" was on hand to keep the peace. And this administration was the tact, the ability, the firmness, the humanity and the justice of the Northwest Mounted Police. With order preserved and law enforced, communities could direct their attention to grow, unhampered.

The redcoats, brushing aside the primeval forests and treading the buffalo-haunted plains, prefigured the thriving communities that gradually took over the job of administration. In time, all the land to the United States border—Washington, Montana, Idaho—south of the 60th parallel—was governed by Provincial Governments.

Gold, adventure, romance in the Yukon created a fresh problem for the Mounted, but the Force was prepared for the newest rush. In the face of difficult travel conditions and the stern law of life in the Far North, the men who keep the peace in the Land of the Maple Leaf again preserved order. Rough-hewn miners, camp followers of divers sorts and "tough characters" generally rushed into the Yukon. But the Mounted was ready and order was preserved in this far-flung region.

The work of the Mounted had so established itself in popular and official favor and its fame had traveled even to London, that in 1905, it was officially termed the Royal North West Mounted Police. In that year, too, Saskatchewan and Alberta were created as Provinces.

But the Mounted remained, despite the new political complexion, the Provinces making fiscal arrangements to defray the cost. The job of ordinary enforcement of law and order was given into the keeping of these two provinces, under the stress of World War days, in 1917. But in 1928, the Saskatchewan Provincial Police was disbanded. The Royal Canadian Mounted Police again became responsible for controlling criminals.

Ordinary police work in the Yukon and the Northwest Territories became the assignment of the Mounted and in other parts of the Dominion, enforcement of purely federal statutes was the order of the day.

West of Port Arthur and Fort Williams—in the entire sweep of Western Canada—the Force in 1918 became responsible for enforcing federal legislation. To British Columbia, to Manitoba and to Western Ontario lying between Manitoba and Lake Superior the authority of the Force was extended. With ever-increasing social problems, the task became accentuated.

The General Strike of 1919 brought the Mounted to the fore, again. With "a minimum of bloodshed," the Force suppressed the riot in Winnipeg, which spelt the end of the strike.

Impressed with the necessity of a unified police force for All Canada, the Government, on February 1, 1920, merged the Dominion Police with the Royal Northwest Mounted Police. The new title, which now prevails, is the Royal Canadian Mounted Police. Thus a single Federal Constabulary was constituted.

The Dominion Police was the outgrowth of the early days. Navvies engaged in enlarging the Welland and St. Lawrence canals created disturbances, back in 1846. An ordinance during the administration of Lord Durham formed the legal foundation for the creation of this body. Then came the Elgin riots in 1849 in Montreal, when a similar Force of Mounted Police came into being. The Fenian Raids called into use the Governmental Police again and by 1868, the Dominion Police assumed permanent status, at first primarily to safeguard Ottawa's public buildings.

From a handful of a dozen men, the Dominion Police grew to a strength of 140 at the start of 1920. Ottawa was the main center of its activities, although its operations were enlarged to embrace the dockyards at Halifax and Esquimalt. Anti-counterfeiting methods and fingerprinting were developed that proved worthwhile. Then, soon after the Armistice, the Dominion Police was amalgamated with the Royal Northwest Mounted Police.

Military duties are second nature to the Mounted. Back in that primeval march that wrote the name of the organization so gloriously in Canadian history, the job was a military one. Then, to the South African War, the outfit furnished a considerable number of troops to the British forces. The World War saw them in action in the fighting lines again. The Mounted supplied two squadrons for overseas duty. One saw service in France, while the other was in Siberia.

The oath of allegiance taken by those joining the Mounted is an impressive one. Its wording is:

"I _____ do swear that I will be faithful and bear true allegiance to His Majesty King Edward the Eighth, His heirs and successors according to law. So help me God."

Then comes the oath of office, thus:

"I _____ solemnly swear that I will faithfully, diligently and impartially execute and perform the duties required of me as a member of the Royal Canadian Mounted Police, and will well and truly obey and perform all lawful orders and instructions which I shall receive as such, without fear, favor or affection of or towards any person. So help me God."

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Applicants must give their occupation or employment for the preceding five years, with names and addresses of employers and length of time with each. They are asked about their ability to drive an automobile or motorcycle and any experience in motor mechanical work. The care and management of horses is the subject of another query, as well as the ability to ride.

"Have you at any time served in any military or police force?" the applicant is asked.

If so, he is required to state when and where and the significant question: "Can you produce discharge certificate, if NOT, why?"

Of course the date and place of birth are requisites, as well as being a British subject. The newcomer is asked if he ever applied for engagement in the Royal Canadian Mounted Police and was rejected. He is quizzed on whether he has ever been convicted of any offense.

Use of a typewriter, shorthand and the ability to speak French — and to what extent — are other questions. French is important in the Northland, for the work of the Mounted often requires that they be bilingual. The ability to speak any other language is the subject of another question.

Qualification in any profession or trade; the extent of the man's application; his age; height; weight; chest measurement; whether married or single and—if married —how many children are further subject of inquiry by the authorities. The applicant then signs the application and two certificates of character must accompany it.

The authorities are careful to point out that "all tests must be satisfactorily passed before applicant's name is placed on waiting list. The fact that an applicant's name has been added to the waiting list does NOT constitute a guarantee that such applicant will be ultimately engaged."

Then, on another page, the officer or non-commissioned officer interviewing the applicant, records his observations. His impression of the applicant's physique and bearing; his manners and address; whether or not he bears a good character in the community; the medical examination; percentage obtained in the educational test; general remarks and whether the man is considered outstanding, very good, good, fair or poor are duly set down.

The term of "engagement"—as a "hitch" is called—is for five years. For former members of the Force, it may be for one, two, three or five years. Applicants must be "British subjects, intelligent, active, able-bodied men of thoroughly sound constitution, sober and steady, and must produce certificates of exemplary character from reliable persons."

The age limit is from 21 to 30, save in cases where they have received naval, military, police or similar training. Desirable qualifications include care and operation of motor vehicles and care and management of horses, with ability to ride.

The minimum height is five feet, eight inches in socks, and the maximum weight up to and incuding six feet one inch in height is 185 pounds and over that, NOT to exceed 200 pounds.

"Married men will NOT be engaged," applicants are informed.

The members of the Force are supplied with free quarters, rations, uniforms, medical and dental attention. Rates of pay are: trumpeters, 75 cents to $1.25 daily; sub-constables, 75 cents to $1.25 daily; constables, 3rd class (probationary period NOT less than one year) $1.50 per day; constables 2nd class (period of not less than one year) $1.75 per day; constables 1st class $2 per day; constables 1st class, second year, $2.05 per day; constables 1st class, third year, $2.10 per day; constables 1st class, fourth year, $2.15 per day; constables 1st class, fifth year, $2.20 per day; constables 1st class, sixth year, $2.25 per day. Lance corporals are given $2.35 daily. Corporals get $2.50 daily. Sergeants earn $3 daily, while staff sergeants get $3.25 daily.

Non-commissioned officers and constables on discharge, after completing 20 years' service, are entitled to receive a pension. Members of the Force are subject to a five per cent deduction from their pay and this is set aside for widows' pensions.

Any officer of the "R.C.M." Police will receive applications to join the Force and these are forwarded through usual channels to the Commissioner at Ottawa.

The recruit of today will be the seasoned campaigner of tomorrow. By dog-sled, by airplane, by motor-boat, by horseback or afoot, by motorcycle, by automobile, the Mounted will carry forward their mission—equality before the law; protection for the oppressed; aid to the stricken; the "Nemesis" of wrongdoers; Fathers to the needy and the official representative in the waste hinterland of His Imperial Majesty, King Edward VIII, Emperor of India, Defender of the Faith and King of Great Britain and Ireland.

Such is the story of the Mounted—a record that is welded into the very history of the Land of the Maple Leaf—as firmly enshrined in the hearts of the people as is the Marine Corps, in our own United States.

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THE ROLE OF THE MARINE CORPS SCHOOL

(*Continued from page 9*)

pleting this course as of the one completing the Junior Course, including the fact that he is still not completely educated, in a professional sense. The next and final step in his formal education will be the Naval War College, and here he will find that the courses of the Marine Corps School have formed a solid background for the orientation of his studies to Marine Corps needs.

Here in these three courses—Basic, Junior, and Senior—are provided recurring educational opportunities which, if separated by intervals of, say, seven to ten years, may cover the first twenty-odd years of service as an officer. These progressive steps in professional advancement perform the important function of keeping officers abreast of rapidly changing modern developments as well as providing instruction in the more advanced phases of military science.

The various courses, separated as they are by rather long intervals, would, if taken alone, tend to impair the continuity of progressive education. The seven years which may be the minimum contemplated between resident courses is a long time in which to retain the knowledge and ability acquired during a single year of school, particularly when so large a portion is outside the daily duties of peacetime. Even though retained, much of the knowledge would be outmoded long before another year at school was provided; it is perhaps unfortunate that this should be so, but like all other fields in which modern science is involved, change in military science is material and rapid.

To correct this condition, to provide the smooth, even flow of educational development which is most desirable, is the most significant function of the Correspondence School, as applied to regular officers. To reserve officers, it is of the highest degree of importance, for to the vast majority it is the only educational system available dealing with the work of their Corps. The Correspondence School does not perform these tasks by the mere fact of its existence. It must be approached by the individuals whom it desires to serve; and no officer should allow more than a few years to pass without taking advantage of the ministrations of this School, even though he may desire to take the courses in the most leisurely fashion.

The Staff of the Schools is as truly representative of the Corps as are the student groups, for the Staff is no closed corporation. It has never been contemplated that officers should serve on this duty more than three years, although a shorter period does not result in the development of full efficiency. Neither is it considered desirable that officers should frequently return to this duty. Thus there is a large turnover every year; many officers pass from the classes to the Staff, and many from the Staff to other duties in the Corps. The large number of officers who thereby compose the Staff over a period of years is a favorable aspect, for Staff duty does not consist in instructing students alone. It is a course of study in itself and there are few officers who do not consider that they have learned more as instructors than as students. This duty, then, is an additional aid to the many officers who perform it in filling the gaps which exist between their experiences as resident students.

While the first duty of the Staff is to guide the work of the student officers in periods of formal instruction and by informal contacts, its fundamental work is development and modernization of the tactical principles and technique of the problems peculiar to the Corps. The necessity for continuity in this process is obvious and is provided by overlapping tours of duty. In this work, student officers materially assist.

No picture of our educational system would be complete without mentioning the attendance of a few officers at the Schools of other services. This is considered to be not for the purpose of affording special advantages to a small group of officers but to maintain contact with developments in other services. Throughout, the Marine Corps Schools take an independent and self-sustaining attitude toward their ability to educate our own officers for our particular tasks without dependence on outside sources.

Thus the various Schools' courses, each based on the one previous and representing a material advance to the higher aspects of the problem, knit together by the Correspondence School, and founded on the continuity of thought and endeavor maintained in the Staff, provide a system which is truly progressive whether considered from the viewpoint of individual officers or of the commissioned personnel of the Corps as a whole.

Not only are these various courses essential to pro-

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gressive development, but they also provide for the diverse characteristics of the groups for whom they are designed. That this is vitally necessary is readily apparent when the ages, the ranks, the past experiences, and the future needs of the groups are considered.

Officers taking the Senior and Junior Courses are of all ranks from lieutenant colonel to lieutenant. No one course could be designed—even though the need for progressive learning were not so vital—which would fit the needs of the field officer and the junior company officer together. In giving to the lieutenant much of the basic knowledge he should have, it would be necessary to subject the field officer in the same class to boring and wasteful repetition. In giving to the field officer the studies suitable to his rank and his anticipated responsibilities we would not only pass beyond the field of interest of the lieutenant but would enter fields beyond his capacity fully to assimilate. Moreover, the mental capacities of the two groups are markedly diverse. The mind of the 20-odd year old lieutenant is fresh and vigorous, ripe for the accumulation of knowledge. The 40-odd year old mind of the field officer at the next desk may be just as vigorous but is suited to reflection, meditation and constructive work—thinking rather than learning.

The courses as designed at present seek to take full account of these group variations and, although susceptible of an improvement which will be possible as our educational standard is raised, they do so with considerable success.

It is a common misconception to regard school duty as "theory" and other duties as "practical," with invidious implications against the former. As a matter of fact, duty in the Schools, when considered in the light of the doctrine that the object of all training is success in battle, is as practical as any, and more practical than most of the duties which can be performed by an officer in peacetime. This is true because of the method of instruction applied to nearly all phases of the work.

The most beneficial peacetime training is generally acknowledged to be properly conducted combat exercises with troops on the terrain. This ideal method is one which the Schools may be able to employ in the future. In spite of its present lack and other admitted disadvantages, duty in the Schools gives to the training of officers certain definite characteristics difficult to realize elsewhere to so full an extent.

The nine months of a resident course are devoted solely to the work of the Schools, quite free from the responsibilities and distractions of guard, drill, and administrative duties; the whole attention may be concentrated on the studies involved. The courses include all pertinent kinds of operations on the most widely varied types of terrain, giving a breadth of geographical vision available otherwise only by actual service or travel in widely separated areas. The observation and study of the individual officer is extended to all the functions he may perform in all the types of units in which he may be called upon to serve and thus qualify him to perform a variety of wartime duties, to coordinate them with other related activities, and to understand the duties and problems of those associated with him.

In the Schools, the officer is introduced by practical work to those aptitudes he will be called upon to display in war. He works with all the weapons he may employ or which may support him. He solves tactical problems on the ground and the Schools are constantly seeking profitably to employ an increasing amount of time to ac-

tual terrain exercises; here he makes the same decisions, issues the same sort of orders he will be required to do in combat. On the map, he makes the same studies, produces decisions, orders, and plans similar to those required of the commander or staff officer of any unit as large as a battalion. By performing the work of various staff groups, he not only qualifies himself to fill any particular staff position but acquires the knowledge of staff functioning essential to a commander. Communications, supply, administration and other logistical considerations as they appear in war become at least speaking acquaintances rather than total strangers.

By "practical work" is meant that which the officer himself performs as distinguished from lectures to which he listens. It may be disassembling a machine gun, acting as a member of a mounted patrol, or engaging in a tactical exercise on the ground; it may also be a map problem which, as long as it bears a direct relation to the type of situation which may actually be encountered, is just as practical as the more active form of work. In both the Senior and Junior Courses, over 80 per cent of the time is devoted to "learning by doing."

In the Senior Course, for example, the greater part of the year is devoted to the consideration of a few continuing-situation or project problems; i.e., ones in which the task set is the conduct of an operation from its inception to its end. To begin with, there are two problems, one involving the defense and one the capture of a base. Both include studies of the area, determination of the necessary strength and type of forces, plans of the various naval agencies, plans of supporting arms, the force plan, logistical and administrative plans, and conduct of the action, creating new situations necessitating orders and battlefield decisions of the various commanders. These two introductory problems are solved under the guidance of the Staff for the purpose of demonstrating the tactical principles, the staff functions essential to planning and execution of plans, and the technique which apply.

There then follows a problem involving the force in both the seizure and defense of a base, solved solely by the student officers in order to demonstrate their grasp of the previous instruction and to discover defects which require to be remedied.

The study of this type of operation culminates in the Naval War College problem which is studied and solved by the Senior Class organized as two operating staffs, as well as by the Schools' Staff similarly organized. These amphibious problems, and particularly this last, are laid in a possible theater of operations and include an intensive study of the physical features of the area and of strategical considerations relating thereto, an accumulation of knowledge which may be expected to be of material future value.

The course also includes landing operations in the form of map maneuvers, a small war project problem, and small war terrain exercises in addition to the review part of the course mentioned above.

Considering the scope indicated in this brief analysis of the work of a school year, remembering that it is covered not by theory alone but by application to concrete problems, it is evident that school duty is definitely practical, definitely "capable of being turned to use or account," in the event of the national emergency which alone justifies our existence. The enlargement of his capabilities, practical work in duties which will be required in combat, is available to officers on troop or other duty not in the course of daily peacetime routine but only through individual effort, preferably assisted by asso-

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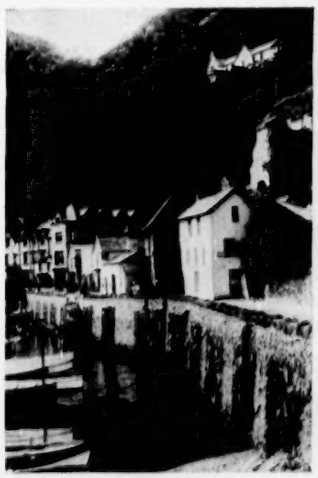

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ciation with the Schools through the medium of correspondence.

In considering the relation of the Schools to the Corps as a whole, the position may be simplified by stating that the object of the Marine Corps in time of peace is solely to maintain, train, and equip a fighting force capable of performing the tasks assigned to it in time of war. All other activities are contributory or subsidiary to this end. Although the permanent constituents of the force are organized and known as the Fleet Marine Force, even such apparently remote activities as Navy Yard guards serve toward this end, for the personnel of which they are composed, commissioned and enlisted, will certainly be absorbed in large measure into the Fleet Marine Force in time of need.

The degree to which the Schools fulfill their function may then be measured by the extent to which they prepare officers for wartime service in the Fleet Marine Force and in capacities contributing to the combat success of that organization. A knowledge of the capabilities, limitations, and methods of employment of this force is essential not only to the officers serving therein but to officers at Headquarters who provide its personnel and equipment to meet the needs of the naval commander-in-chief, to the quartermaster who remains behind to accumulate and forward the supplies which form a base on which tactical employment must rest, to naval officers who advise as to its employment or who work in coordinating the activities of the forces afloat with the forces ashore, and to many others.

The relation between the Schools and the Fleet Marine Force is very close in more than the mere geographical sense. With units of the latter located in the same post as the Schools, there is a constant interchange of thought and ideas. Every year, many officers from the Fleet Marine Force join the Schools, and many go from the Schools to that force. Thus is avoided that trend to which schools are liable if segregated from the realities to which their whole existence is supposed to be a contribution, the tendency to philosophize, to become academic, to work with imaginary situations, conditions, forces and weapons rather than those which have a probable existence in the immediate future. There is also avoided that other extreme which may occur in an organized force, if remote from outside contacts, of being narrowed in thought to the particular problems for which daily responsibility must be accepted and within the handicaps of peacetime personnel and matériel limitations, without adequate appreciation of the requirements of varying situations in a future which is only seemingly remote.

The action and reaction of the Schools and the Fleet Marine Force, one on the other, is very constant and very real. We may characterize the Schools as the research unit which seeks and develops the principles and data relating to our task; the Fleet Marine Force as the experimental laboratory which translates these principles into action and tests their practicality. The Schools seek to meet the needs of the Fleet Marine Force as developed by maneuvers and as reported by officers who have gone through such experiences; while the Force, within the limits imposed by its peacetime maneuvers, may act as a check on arm-chair tactics. The Corps as a whole may have confidence that, while exchange of personnel between these two organizations is so continuous, mutual influence will prevent either straying very far from the path of true development.

So in training officers for service in that body of combatant troops which forms the nucleus of the Corps, to which every officer may aspire to be attached, and the success of which is vital to every one of us as a group and as individuals, the Schools truly serve the entire Corps, not only offering its facilities to each individual but contributing to the common objective of all.

Our educational system, then, is modern and progressive, fully oriented with regard to our greater tasks, and adapted as fully as existing circumstances allow to our needs. It is not only of vital import to every officer in the Corps but is available to all, for in spite of the difficulties of giving to every individual the full advantage of the resident courses, there are none to whom the services of the Correspondence School, with its excellent and up-to-date courses, are not available.

The Schools are not to be regarded as isolated phenomena in our service life. They form, instead, an *active training unit*, developing in our officers not only the limited capabilities required for peacetime service but the far greater ones which will be demanded of them at some future date. Every officer in the Corps is an ex-member, a present member, or a potential member of the Schools' organization in one capacity or another. The development of our educational system to its full capacity for usefulness is the vital concern of every officer, to be assisted by sympathetic and helpful interest on the part of all, fostering care by those who direct its destinies, and that freedom from arbitrary control which will alone permit the Schools to continue to grow, without crippling or distortion, as a normal and useful member of the body of the Corps which it serves.

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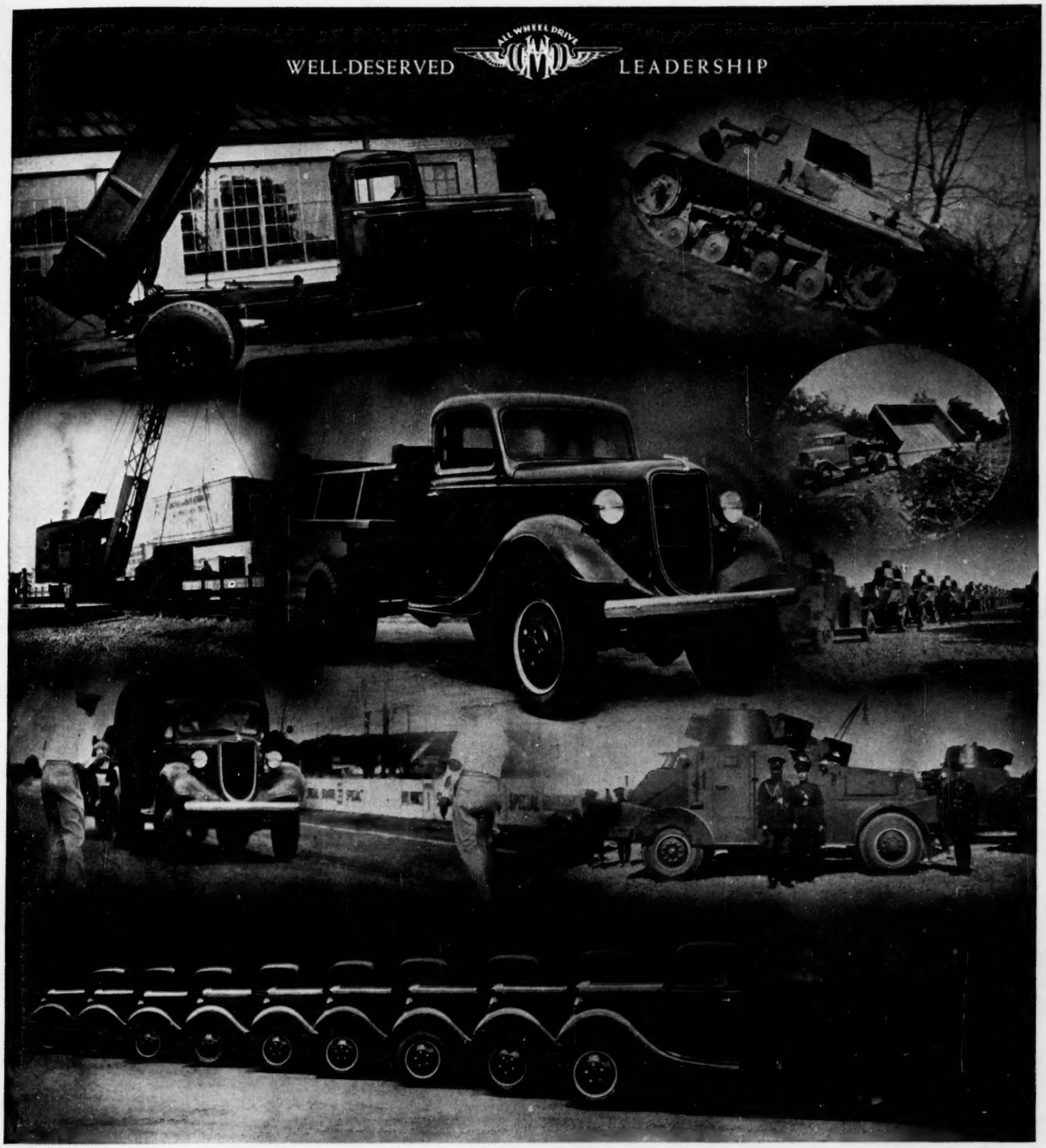

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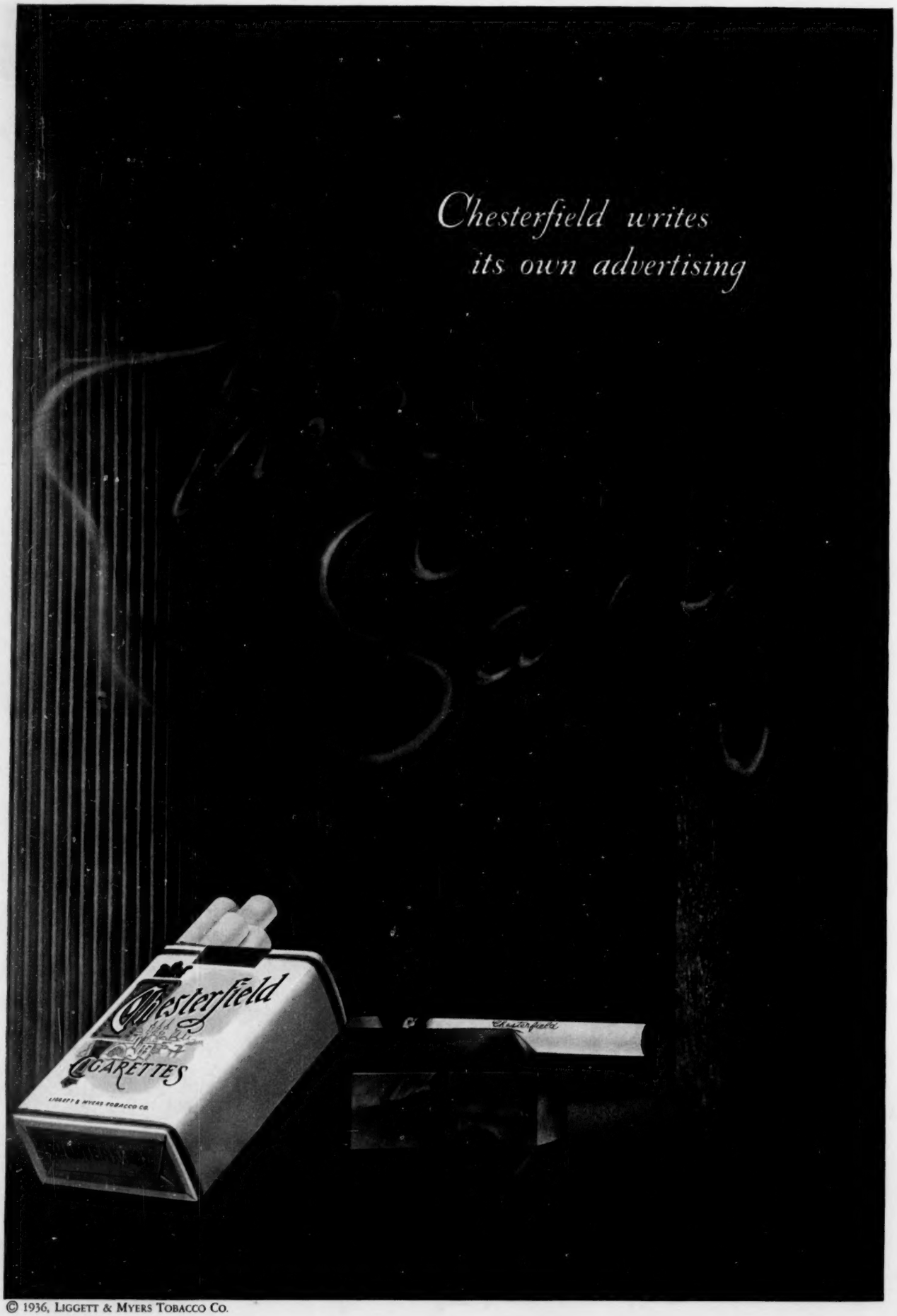

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